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ACCOUNT OF THE OPERATIONS OF

THE GREAT TRIGONOMETRICAL SURVEY OF INDIA

VOLUME XIXA.

DESCRIPTIONS AND HEIGHTS OF BENCH-MARKS

ON THE

SOUTHERN LINES OF LEVELLING

PREPARED UNDER THE DIRECTIONS OF

COLONEL S. G. BURRARD, R.E., F.R.S.,

SUPERINTENDENT TRIGONOMETRICAL SURVEYS.

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PREFACE.

The two volumes, XIX A and XIX B, contain the results of the levelling carried out by the Survey of India during the years 1858-1909. The southern lines of levelling, numbered 1 to 42, are given in Volume XIX A, the northern lines, numbered 43 to 86, are in Volume XIX B The frontispiece chart shows that the boundary between the southern and the northern lines,—between Volumes XIX A and XIX B,—runs from Bombay, through Sironj, Nagpur, Bilaspur to False Point. An engineer in Madras will require Volume XIX A only; an engineer in the Punjab will use Volume XIX B only. In the Central Provinces both volumes will be necessary.

A complete account of the levelling operations of the Survey,—of the methods of observation, of the instruments and bench-marks, of the connections with sea-level, of the closing errors, of the adjustment of the level-net,—is given, together with discussions of revisions and of accuracy, in Volume XIX of the *Account of the Operations of the G. T. Survey of India.* Volumes XIX A and XIX B are the sequels of Volume XIX, and contain the final values of elevation, resulting from the processes described in Volume XIX.

The level-lines, numbered 8, 14, 16, 17, 21, 22, 25, 26, 31 and 32, have been revised throughout, and the original spirit-level heights have been rejected The elevations, recorded upon these lines in Volume XIX A, are those that resulted from the revisions.

The preservation of bench-marks is a difficult task, and the co-operation of engineers is invited. When once a Survey bench-mark has been disturbed, no attempt should be made to replace it, until a levelling officer has been deputed to re-observe its new height. Some marks are known to have been removed and subsequently replaced, their elevations being changed by perhaps a foot or more Disturbance is an evil, but it is a lesser evil than replacement, if replacement is not accompanied by re-observation. When a bench-mark has been disturbed, the circumstances should be reported to the Superintendent Trigonometrical Surveys, Dehra Dun; the latter maintains a record and is able to decide when revisions of levelling and renewals of bench-marks should be undertaken in any particular locality.

The lists of bench-marks in this volume were compiled and the charts were drawn by Mr. Ollenbach, who has taken much trouble to make the volume complete.

The elevations of the bench-marks were computed, and the volume was printed under the supervision of Mr. Eccles, to whom my best thanks are due for his valuable assistance.

Dehra Dun,
July 25th, 1910.

S. G. Burrard.

INTRODUCTION.

(1.) *The accuracy of the levelling results.*

The heights of bench-marks have been given in the tables to 1000th part of a foot, but they are not known to this degree of accuracy. The heights of those bench-marks that are situated in the vicinity of a tidal observatory, at which the determination of mean-sea-level has been adopted as a zero of reference, are known with greater accuracy than the heights of bench-marks, that are at long distances from the coast.

If a surveyor wishes to ascertain the probable error of any *absolute* value of height given in this volume, he should estimate from the frontispiece chart the distance in miles of the bench-mark in question from the nearest tidal base-station. The nine base-stations of the levelling are Karachi, Bombay (Apollo Bandar), Karwar, Beypore, Cochin, Negapatam, Madras, Vizagapatam and False Point. If the distance of a bench-mark in miles from the nearest tidal base-station, as measured along a line of levelling, is M, the probable error of the height of the bench-mark may be taken to be

$$\pm \sqrt{(0{\cdot}004)^2 M + (0{\cdot}00034)^2 M^2}.$$

Thus if we want to ascertain the probable error of the height of Gulbarga, we see from the chart that the nearest tidal base-station is Bombay. We can ascertain the distance, M, along a level-line, of Gulbarga from Bombay either from the chart or from the tables of this volume; M = 350 miles nearly.

$$\text{Probable error of height of Gulbarga} = \pm \sqrt{(0{\cdot}004)^2 \times 350 + (0{\cdot}00034)^2 \times 350^2}$$
$$= \pm\ 0{\cdot}140 \text{ foot.}$$

The statement, that the probable error of the height of Gulbarga (1489·322 feet) is ± 0·140 foot, means that if the levelling from Bombay to Gulbarga were to be revised, it would be an even chance, that the revised height of Gulbarga would be found to be between 1489·322 − 0·140 and 1489·322 + 0·140, *i.e.*, between 1489·182 and 1489·462 feet. The accuracy of the Indian levelling is such, that if the line from Bombay to Gulbarga were to be revised ten times, five of these revisionary operations would give to Gulbarga a value of height lying between 1489·182 and 1489·462 feet.

Surveyors generally require the absolute heights of bench-marks above sea-level; engineers on the other hand are more interested in the *difference* of height between two places than in the absolute height of either. If an engineer wishes to ascertain the probable accuracy of any difference of height between two bench-marks, as derived from this volume, he has only to take out from the volume the distance apart of the bench-marks, as measured along the levelling-line, and calling this distance M, to calculate the probable error in decimals of a foot from the same formula as before;—

$$\pm \sqrt{(0{\cdot}004)^2 M + (0{\cdot}00034)^2 M^2}.$$

(2). *Permanence of bench-marks.*

The possibility, that bench-marks may have been disturbed, is a question that should be considered by engineers making use of them. Some bench-marks will last for centuries, others will vary in height within 10 or 20 years. The most permanent and reliable form of bench-mark is an inscription on solid ground-rock. The standard monolithic bench-marks have been built with great care, and are as permanent as any marks can be, that are erected on unconsolidated ground. Embedded bench-marks, that have been buried out of sight, are generally very reliable, if they have not been placed near railways; but blocks embedded under railway platforms are liable to sink 3 to 6 inches in 20 or 30 years. Mile-stones are constantly being moved and are not suitable positions for bench-marks. It is greatly to be regretted, that in former years the levellers on certain lines placed so many marks upon mile-stones; the temporary character of mile-stones had probably not been fully realised then, and it may perhaps have been difficult to find suitable sites on flat soft ground in certain localities. In the early years of levelling in India, too many bench-marks were placed near railways; this was done to suit the convenience of engineers, but experience has shown that lines of railway are in constant vibration and do not furnish permanent sites.

Any person who discovers that a Survey bench-mark has been disturbed, or that a description given in this book is no longer correct, is requested to inform the Superintendent Trigonometrical Surveys, Dehra Dun.

(3.) *Points to which values of height refer.*

In this volume heights have been given in some instances for stone posts* and mile-stones, and rails, upon which no bench-mark has been inscribed. In these cases the height always refers to the top of the post, to the top of the mile-stone, and to the top of the rail. In all cases where an arrow has been engraved, the height refers to the head of the arrow. In cases of inscribed circles the height refers to the interior of the circle. In the case of embedded bench-marks a hollow square has been cut in the upper surface of the stone block, and the height given refers to the interior of the square. All heights are measured above mean-sea-level. In Vol. XIX the method of determining mean-sea-level has been explained.

(4.) *The difference between dynamic and orthometric heights.*

Owing to the spheroidal form of the earth, the surface of a high-level lake is not parallel to the surface of the sea vertically below it. The two surfaces converge towards the north. The orthometric height of any point is the height above sea-level measured vertically by a tape or staff. The dynamic height is the height derived from the observation of water-flow. The dynamic height of every point of the surface of a high level lake is the same, if the water is in repose. The orthometric height of the northern end of such a lake is less than the orthometric height of the southern end, because its vertical distance above sea-level is less.† *Orthometric values of heights should be employed by surveyors and engineers.*

(5.) *Charts.*

The relative positions of the several level-lines are shown in the frontispiece chart. A separate chart has been included for each line of levels to illustrate the route. These charts were on too small a scale to admit of all bench-marks being shown, but standard bench-marks, embedded bench-marks, and stations of principal triangulation have been entered.

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* Vol. XIX A, page 34, bench-mark 43.

† The subject is discussed at length in chapter VII, Vol. XIX, *Account of the Operations of the G. T. Survey of India.* When we speak of the sea being "vertically below" a high-level lake, we imagine a tunnel under the lake, through which the sea flows.

(6.) *Numbering of bench-marks.*

Each bench-mark has two numbers, a geodetic and a topographic; the geodetic numbering shows the relative positions of marks on their levelling line; the topographic numbering shows the survey areas in which the marks fall. In previous publications bench-marks have been allotted a geodetic number only, and this has been found an insufficient guide for surveyors and engineers. The geodetic numbers indicate *lines of route*, which are doubtless of interest to levellers and computers. But what surveyors want is a list of all bench-marks situated *within any given area.*

When two or more lines of levelling intersect, each provides bench-marks for the same survey area; in some few cases a bench-mark may be common to two or more lines, but generally the bench-marks on the intersecting lines are different. If for instance we compare the Madras terminals of line No. 8, Arkonam-Madras and line No. 9 Madras-Tanjore, we see that the first twelve bench-marks of page 62 (Arkonam-Madras) are all situated in Madras, but that none of them appears on page 63 in line No. 9 (Madras-Tanjore). The system, under which line No. 8 and line No. 9 were published in different pamphlets led therefore to the separation of the Madras bench-marks into two lists, neither of which was consequently complete. The index to degree sheets, given in this volume, indicates all the pages, on which bench-marks occur in any particular degree-sheet*. The topographic number for instance of the bench-mark 28 of main-line No. 8 is $\frac{\text{BM. 30}}{\text{66 C}}$; this denotes the 30th mark within degree-sheet 66C: the same topographic number will be found attached to bench-mark 2 of main-line No. 9, thus denoting that one and the same mark is common to both lines.

When a bench-mark is situated very close to the boundary of a degree sheet, it is often impossible to ascertain to which degree sheet the bench-mark really belongs. We seldom know the latitude or longitude of bench-marks, nearer than 5 or 10 feet, and in some cases, especially when the positions of marks have to be obtained from old maps, the uncertainty may extend to 50 or 100 feet. When therefore, for example, a bench-mark situated on the northern border of degree sheet 58B is given a topographic designation with 58B for the denominator, and is shown in the level chart in sheet 58B, we

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* *See* page 85 of Vol. XIX. The survey areas, by which bench-marks have been classified and numbered, are called degree sheets; they embrace one degree of latitude by one degree of longitude. Surveyors are well aware of the system followed in numbering survey sheets, but a few words of explanation may not be out of place here for the use of engineers.

The map of *India and Adjacent Countries* embraces the area bounded by 40° latitude on the north and by the ocean on the south, and situated between the meridians of 44° and 124°. The index map is published in General Reports of the Survey of India. This area of Asia is divided into 136 survey sheets, each of which comprises 4 degrees of latitude and 4 degrees of longitude. The longitudes are derived from the Greenwich-Teheran-Karachi observations of 1894-1896. The numbers of the sheets in India itself are as follows:—

Between the meridians of	Latitude boundaries of sheets
64° and 68°	Sheet 34 (*latitude 32° to 28°*) Sheet 35 (*lat. 28° to 24°*)
68° and 72°	Sheet 38 (*lat. 36° to 32°*), 39, 40, and 41 (*lat. 32° to 20°*)
72° and 76°	Sheets 43 to 49 (*from lat. 36° to 8°*)
76° and 80°	Sheets 53 to 58 (*from lat. 32° to 8°*)
80° and 84°	Sheets 62 to 66 (*from lat 32° to 12°*)
84° and 88°	Sheets 72 to 74 (*from lat. 28° to 16°*)
88° and 92°	Sheets 78 and 79 (*from lat. 28° to 20°*)
92° and 96°	Sheets 83 to 85 (*from lat. 28° to 16°*)

Each of these large sheets of 4 degrees square is sub-divided in 16 degree sheets, each of which is one degree squ

A	E	I	M
B	F	J	N
C	G	K	O
D	H	L	P

Survey sheet 58 covers the area between meridians 76° and 80° and between latitudes 12° and 8°: degree sheet 58A therefore embraces the sub-division between 76° and 77° and between 12° and 11°; degree sheet 58P embraces the sub-division between 79° and 80° and between 9° and 8°. With the aid of the tables given in this footnote, it is possible (*a*) to find the number of the degree sheet in which any town falls, if its latitude and longitude are known, (*b*) to find the region included within any named degree sheet. Separate lists of bench-marks are about to be published for each survey sheet of 4 square degrees.

cannot guarantee that the bench-mark may not eventually be located by surveyors in sheet 58A. Similarly, for example, a bench-mark on the border line between sheets 56H and 57E may be allotted with equal show of reason to either sheet. In these cases of uncertainty we might have given two topographic numbers to each border bench-mark, but this course seemed cumbersome, and we have preferred to allot every bench-mark to some particular sheet. When therefore engineers are seeking to ascertain the descriptions of all bench-marks situated in any particular sheet, they are advised to consult the index to degree sheets appended to this volume, and to examine the lists for neighbouring sheets.

A few words more are required to explain the system followed in allotting geodetic numbers to bench-marks.

A topographic number, such as $\frac{\text{B.M.51}}{48\,\text{M}}$ is self-explanatory: it merely means the 51st bench-mark of the degree sheet 48M; but the geodetic numbering is not so simple.

The level-lines of India have been divided into (*a*) main-lines, (*b*) principal branch-lines and (*c*) minor branch-lines.

The main-lines are numbered consecutively from 1 to 86*; the principal branch-lines have been given the number of the main-line, from which they emanate, together with a letter attached†. Thus a number, such as 40, must imply a main-line, and a symbol, such as 48 A, must imply a branch-line emanating from main-line 48. Lines 61A, 61B, 61C, 61D are all principal branch-lines emanating from main-line 61.

Every main-line and every principal branch-line has been printed in this volume as a separate list. When a main-line of levelling is being observed, the levellers carry out numerous minor branches to towns and triangulation stations: it has not been found convenient to number these minor branches in the same way as principal branches have been numbered, or to separate them in publication from the main-lines to which they belong. The geodetic designation of bench-marks has therefore been divided into two columns in the lists of this volume; in the first column appear only the bench-marks on an actual main-line or an actual principal branch-line. The bench-marks of the minor branches will be found in the second column: thus on page 41 will be found a minor branch consisting of bench-marks $\frac{1}{31}$ and $\frac{2}{31}$. Numbers such as $\frac{1}{31}$, $\frac{2}{31}$ imply that a minor branch-line starts from bench-mark 31 of the main-line; the denominator shows the bench-mark of emanation, the numerator shows the position in the minor branch. In former years the levellers extended this system of numbering to minor branches that emanated *from* minor branches, but the designations became very complicated.

In this volume the geodetic numbering has been limited to four classes:—

(*a*) a simple number, such as 30, which denotes the number of the mark on the line.

(*b*) a number such as $\frac{3}{26}$, which denotes the 3rd mark on a minor branch emanating from the 26th mark of the line.

(*c*) a symbol, such as $\frac{a}{26}$, or $\frac{a}{119}$, or $\frac{b}{73}$, or $\frac{c}{48}$, which denotes an *extra bench-mark* close to the line. $\frac{a}{26}$ denotes not a minor branch, but an extra mark near bench-mark 26 of the line.

(*d*) a symbol, such as $\frac{3a}{26}$, (*see* page 62) which denotes an extra bench-mark a situated close to the 3rd bench-mark of the minor branch, which emanates from mark 26 of the line.

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* Volume XIX, G. T. Survey of India, page 5.
† Volume XIX, G. T. Survey of India, page 20.

The following table summarises the geodetic system of enumeration :—

Line or Bench-mark	Designated as
Main-line 8	Line No. 8
Principal branch-line 61A	Line No. 61A
Bench-mark 29 on main-line 8	29 of line 8
Bench-mark 31 on principal branch-line 61A	31 of line 61A
Bench-mark 5 on minor branch emanating from bench-mark 47	$\frac{5}{47}$
Extra bench-mark a, close to bench-mark 26 of main-line, or of principal branch-line	$\frac{a}{26}$
Extra bench-mark a, close to bench-mark 4, of the minor branch that starts from bench-mark 113 of main-line	$\frac{4a}{113}$

If a bench-mark on a main-line or on a principal branch-line has been reported as destroyed, it has been entered in the column for description as 'destroyed': if an extra bench-mark has been reported as destroyed, all mention of it has been omitted from the lists.

(7.) *Distances of bench-marks from a station of origin.*

Distances are measured along the lines of levelling, and not along the most direct roads. They are therefore apt to be misleading, especially in the case of bench-marks situated on minor branch-lines, and they should only be regarded as general guides. If a minor branch-line leaves its main-line (for example) at bench-mark No. 21, and winds about through a town for 4 miles connecting with bench-marks $\frac{1}{21}$, $\frac{2}{21}$, $\frac{3}{21}$, to $\frac{7}{21}$, it may happen that the last bench-mark of this minor branch-line is situated within a mile of the bench-mark of issue, No. 21 of the main-line; but the distances, shown in this volume, will be the distances measured *along the levelling route*, so that, if the distance of bench-mark 21 is n miles from the station of origin, the distance of bench-mark $\frac{7}{21}$ will be shown as $(n + 4)$. These distances, as derived from the levelling routes, are quite correct, although an engineer finding the actual distance apart of bench-marks 21 and $\frac{7}{21}$ to be less than a mile, might think that the published values were in error. Other methods of indicating distances were considered, but it was decided to adhere to the system of measurement *along levelling routes.*

Dehra Dun
June 20th, 1910.

S. G. Burrard.

Main-Line 1. (Tanjore to Ramnad).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 1 / 58 N	0·0	G.T.S. □ B.M. Embedded at Tanjore Railway Station. Situated in angle formed by N. wall of old goods-shed, and E. wall of goods office. It is 3½ feet north of N. wall of old goods-shed, 7 feet N.W. of N.W. corner of step of goods-shed, 5 feet E. of east wall of goods office. The letters B.M. are cut in E. wall of goods office.	193·266	193·400
2	BM 2 / 58 N	6·5	G T S. ○ B M Cut on step at entrance to Puliyarkoil (temple), ¼ mile E. of Nadvour village and 4 chains W. of road from Taujore to Arantangi.	177·163	177·286
1/2	BM 3 / 58 N	11·0	G T S. □ B.M at Panchnad Ayar's well. About 17 feet south of well, situated 400 feet E. of road from Tanjore to Arantangi and midway between Ichchankota and Vadakur villages in Ichchankota lands, Tanjore district. The letters B.M. have been cut in wall of well opposite the bench-mark.	175·483	175·605
3	BM 4 / 58 N	10·1	*G.T.S. ○ B M. Cut on S.E. corner of platform of Chhattram, ¼ mile E. of Vadakur village.	147·118	147·220
4	BM 5 / 58 N	12·2	G T S ○ B.M Cut on stone at entrance to Chilliama Devi's temple, ¾ mile S. of Solavaram village.	132·900	132·993
5	BM.6 / 58 N	13·0	G.T.S. ○ B.M. Cut on outer sill at main entrance to Siva temple at W. end of Konur village.	132·078	132·170
1/5	BM.7 / 58 N	15·2	On top of circular pillar of Kakkrakota, G. T. Survey Trestle Station, lat. 10° 36′ 14″·82, long. 79° 12′ 40″·81. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	129·989	130·080
6	BM.8 / 58 N	20·2	B. O M. Cut on N. side of resting stone on north of main road from Pattukkottai to Trichinopoly (Tiruchinapalli) and 4 chains east of mile-stone 14 from Pattukkottai and 20 from Sengipatti.	148·773	148·878
1/6	BM.9 / 58 N	21·3	B. O M. Cut on top of mile-stone, 15 miles from Pattukkottai.	173·032	173·153
2/6	BM.10 / 58 N	21·9	On top of rectangular protecting pillar of Kallakota, G. T. Survey Trestle Station, lat. 10° 30′ 46″·48, long. 79° 7′ 25″·37. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	185·524	185·655

Main-Line 1. (Tanjore to Ramnad).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
7	BM.11 / 58 N	22·1	G.T.S. ○ B.M. Cut on a knob 6 inches above platform on which a stone rat rests, and immediately behind rat and in front of a large temple platform (Ganpati's), 1¼ miles N. of Karambagudi and W. of road from Karambagudi to Konur.	166·534	166·651
8	BM.12 / 58 N	23·3	G.T.S. □ B.M. at Karambagudi. Embedded near Ganpati's temple at N. end of village. It is 20½ feet N.E. of B.M. No. a/8, 29 feet W. of centre of road from Tanjore to Arantangi, 12½ feet S.E. of eastern pillar of a well and 19½ feet E. of letters B.M. cut on E. wall of temple opposite the bench-mark which is 3 inches below ground level.	151·052	151·158
a/8	BM.13 / 58 N	23·4	G.T.S. ○ B.M. Cut on N. end of outer sill of main entrance to Ganpati's temple, at N end of Karambagudi village, and on W. side of road from Tanjore.	152·623	152·730
9	BM.14 / 58 N	27·4	On the back of a rat's figure in front of Ganpati's temple on E. side of a large tank near a shepherd's house, ½ mile E. of Pattatikod village.	136·743	136·840
10	BM 15 / 58 N	29·5	On top of rectangular protecting pillar of Karakkurchi, G. T. Survey Trestle Station, lat. 10° 22′ 56″·34, long. 79° 6′ 26″·47. A principal station of the South-East Coast Series. (For full description *see* Synoptical Volume).	173·433	173·555
11	BM.16 / 58 N	35·3	G.T.S. □ B.M. at Nagram. Embedded 19 and 5½ feet respectively from S.E. and N.E. corners of Pudari Devi's temple, 6 inches below ground level. The letters B.M. have been cut on E. wall of temple opposite the bench-mark. The temple is ½ mile N.W. of Nagram village.	138·080	138·178
12	BM 17 / 58 N	38·5	On root of Paras tree E. of road in Panangkad village.	135·690	135·786
1/12	BM 18 / 58 N	39·5	G.T.S. ○ B.M. at Peringar Mandav (temple). Cut on north end of second step from bottom at entrance to temple in Kulamangalam village and 1 mile west of road.	148·305	148·410
2/12	BM 19 / 58 N	40·3	On top of rectangular protecting pillar of Kulamangalam, G. T. Survey Trestle Station, lat. 10° 16′ 44″·02, long. 79° 2′ 8″·22. A principal station of the South-East Coast Series. (For full description *see* Synoptical Volume).	175·023	175·147
13	BM 1 / 58 J	46·5	G.T.S. □ B.M. at Arantangi. Embedded in compound of Tehsildar's court, 11 and 8 feet respectively from N.W. and S.W. corners of cook-room, 55 feet east of road to Pattukkottai, 73½ feet N.W. of N.W. corner of Tehsildar's court, and 6 feet W. of the letters B.M. cut on W. wall of cook-room.	158·307	158·419
a/13	BM 2 / 58 J	46·5	G.T.S. ○ B.M. at Arantangi. Cut on upper step at foot of wooden post on W. side of N. wing of Tehsildar's court.	159·539	159·653
14	BM 20 / 58 N	48·7	On root of Paras tree, E. of road from Arantangi to Avadayarkoil.	146·046	146·150
1/14	BM.21 / 58 N	49·5	On top of rectangular protecting pillar of Pallathivayal, G. T. Survey Trestle Station, lat. 10° 9′ 11″·23, long. 79° 1′ 1″·10. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	149·979	150·086

Main-Line 1. (Tanjore to Ramnad).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
15	BM.22 / 58 N	50·1	B. O M. Cut on top of mile-stone No. 4 from Arantangi.	136·968	137·066
16	BM.23 / 58 N	53·8	O Cut on top of mile-stone No. 8 from Arantangi.	103·631	103·705
17	BM.24 / 58 N	54·6	G.T.S. O B.M. at Avadayarkoil. Cut on E. end of outer sill at main entrance to large Siva temple.	99·093	99·164
18	BM.25 / 58 N	54·7	G.T.S. O B M. at Avadayarkoil. Embedded 19 and 12 feet respectively from N.W. and N.E. corners of Ganpati's temple, and 165 feet S. of Bench-mark No. 17. The letters B.M. are cut on N. wall of Ganpati's temple 6 feet from the bench-mark, which is 4 inches below ground level.	100·671	100·743
19	BM.26 / 58 N	55·8	O Cut on top of mile-stone No. 10 from Arantangi.	91·200	91·265
20	BM 27 / 58 N	56·8	O Cut on top of mile-stone No. 11 from Arantangi.	84·793	84·854
21	BM.28 / 58 N	57·8	B. O M. Cut on top of mile-stone No. 12 from Arantangi.	79·786	79·843
22	BM 29 / 58 N	58·4	G T S. O B M. Cut on south end of 3rd step from bottom at entrance to the Chhattram at Vilanur village. The Chhattram is on W. side of road and ½ mile S. of mile-stone No. 12 from Arantangi.	82·602	82·662
23	BM.1 / 58 O	60·8	Mile-stone No. 15 from Arantangi.	60·773	60·817
24	BM 2 / 58 O	61·8	Mile-stone No. 16 from Arantangi.	54·035	54·074
25	BM.3 / 58 O	62·8	Mile-stone No. 17 from Arantangi.	45·964	45·997
26	BM 4 / 58 O	63·1	G.T S. O B.M. Cut on west parapet of a small bridge on road from Arantangi to Mimisal, 10 chains west of temple at Talanur village and 28 chains south of mile-stone No. 17 from Arantangi.	40·490	40·519
1/26	BM.5 / 58 O	64·1	G.T S. O B M. Cut on cornice of W. wall of mandapam of Mahadev's temple at Talanur village, 13 chains E. of road from Arantangi to Mimisal.	46·383	46·416
2/26	BM 6 / 58 O	64·2	On top of rectangular protecting pillar of Kanad, G. T. Survey Trestle Station, lat. 9° 58′ 37″·87, long. 79° 7′ 16″·14. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	44·658	44·690
27	BM.7 / 58 O	65·8	Mile-stone No. 20 from Arantangi.	22·685	22·702
28	BM.8 / 58 O	66·6	Mile-stone No. 21 from Arantangi.	12·955	12·964
29	BM 9 / 58 O	68·1	Mile-stone No. 42 from Pattukkottai.	8·602	8·608

Main-Line 1. (Tanjore to Ramnad).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
30	BM.10 / 58 O	68·2	G.T.S. □ B.M. at Mimisal. Embedded in a block of masonry in flooring of verandah at N. W. corner of public bungalow 350 feet east of road from Pattukkottai to Ramnad (Ramnathapuram). Bench-mark is flush with verandah floor and 2 feet above ground level.	10·293	10·300
31	BM.11 / 58 O	68·9	G T S ○ B.M. Cut on 2nd step from top or 4th from bottom at entrance to Yembakkota Chhattram on W. side of road from Pattukkottai to Ramnad, ¼ mile south of Mimisal village.	9·393	9·399
32	BM 12 / 58 O	69·4	Mile-stone No. 43 from Pattukkottai.	6·157	6·161
33	BM.13 / 58 O	70·4	Mile-stone No. 44 from Pattukkottai.	5·150	5·154
34	BM 14 / 58 O	73·4	G.T S. ○ B.M. Cut on first step from top of tomb, called Khird-Sahib Walli's Dargah on W. side of road from Pattukkottai to Ramnad in Yenadi village.	8·754	8·760
35	BM 15 / 58 O	75·0	G T.S. ○ B.M. at Sundarapandipatnam. Cut on south end of step at main entrance to Mahadev's temple on W. side of road from Pattukkottai to Ramnad.	10·077	10·084
36	BM.16 / 58 O	75 6	G.T.S. ○ B.M. Cut on off-set of wall on S. side of Ramaswami's Padam ¼ mile S of Sundarapandipatnam Chhattram, on W. side of road from Pattukkottai to Ramnad.	5·433	5·437
37	BM 17 / 58 O	77 6	G.T S. ○ B.M. at Kaliyanagari village. Cut on south end of 2nd step from bottom at main entrance to Siva temple, 3 chains W. of road from Pattukkottai to Ramnad.	7·082	7·087
38	BM.18 / 58 O	79 3	G T.S. ○ B.M. at Vattanam village. Cut on curb-stone on W. side of small well N. E. of Mahadev's temple, on east side of road from Pattukkottai to Ramnad.	11·153	11·161
39	BM.19 / 58 O	80·7	Stone marked No. 1, 6 chains S. of mile-stone No. 4 from Tondi.	7·769	7·775
40	BM.20 / 58 O	81 6	Mile-stone No. 3 from Tondi.	14·808	14·819
41	BM 21 / 58 O	82 6	Mile-stone No. 2 from Tondi.	15·110	15·121
42	BM.22 / 58 O	83 8	G T S. □ B.M. at Tondi. Embedded 11 feet from both S.E. and N.E. corners of flag-staff platform, 79 feet N.E. of Bench-mark No. a/42, and 8 feet due east of letters B.M. cut on east face of flag-staff platform.	10·731	10·738
a/42	BM.23 / 58 O	83·8	G T.S. ○ B.M. at Tondi. Cut on coping stone at N.E. corner of platform of Mahi-ud-din's masjid (mosque) at W. end of Tondi.	14·590	14·601
43	BM.24 / 58 O	84·9	On top of rectangular protecting pillar of Nambudalai, G. T. Survey Trestle Station, lat. 9° 43′ 59″·91, long. 79° 0′ 21″·62. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	17·011	17·023

Main-Line 1. (Tanjore to Ramnad).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
44	BM.1 / 58K	95·1	G.T.S. □ B.M. Cut on coping stone at foot of 2nd pillar from south of E. verandah platform of Uppur Chhattram. The platform is 3 feet above ground level. The Chhattram is about 10 chains W. of road from Pattukkottai to Ramnad in Uppur village.	15·820	15·832
1/44	BM 2 / 58K	96·0	On top of rectangular protecting pillar of Urannankudi G.T. Survey Trestle Station, lat. 9° 37′ 18″·98, long. 78° 55′ 5″·41. A principal station of the South-East Coast Series. (For full description *see* Synoptical Volume).	28·326	28·338
45	BM 3 / 58K	104·7	On top of rectangular protecting pilllar of Poragudi G.T. Survey Trestle Station, lat. 9° 29′ 42″·91, long. 78° 53′ 23″·97. A principal station of the South-East Coast Series. (For full description *see* Synoptical Volume).	16·694	16·706
46	BM 4 / 58K	106·0	G.T.S. ○ B.M. Cut on stone at S.E. corner of Shama Ayar's well at N.W. extremity of Devipatnam village.	10·094	10·101
47	BM 5 / 58K	106·3	G.T.S. □ B.M. Embedded within enclosure of Mahadev's temple (Siva), 13 and 13½ feet respectively from S.W. and N.W. corners of temple, 38 feet E. of W. entrance to enclosure of temple, and 4½ feet due west of letters B.M. cut on western wall of temple in the centre of Devipatnam village.	10·286	10·293
48	BM 6 / 58K	111·8	Mile-stone No. 3 from Ramnad and 7 from Devipatnam.	15·415	15·426
49	BM 7 / 58K	114·8	G.T.S. ○ B.M. at Ramnad. Cut on top step of Ghat at S. E. corner of Kenikkarai tank and due north of Ganpati's temple.	20·604	20·619
50	BM 8 / 58K	114·8	G.T.S. □ B.M. at Ramnad. Embedded 22 and 7 feet respectively from S. W. and S. E. corners of Ganpati's temple (Puliyarkoil), 75 feet W. of centre of road from Devipatnam to Ramnad, 29 feet N. of centre of road from Madura to Pamban, and 4 feet S. of letters B. M. cut on south wall of temple opposite bench-mark. The temple is situated at S. E. corner of a large paka tank called Kenikkarai, ¼ mile E. of Ramnad town, and near junction of roads from Madura to Pamban, and from Devipatnam to Ramnad.	19·807	19·822

Branch-Line 1A. (Ramnad to Pamban).

Designation of Bench-marks			Distance from Ramnad	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM 8 / 58 K	0·0	G.T.S. □ B.M. at Ramnad. Embedded 22 and 7 feet respectively from S.W. and S.E. corners of Ganpati's temple (Puliyarkoil), 75 feet W. of centre of road from Devipatnam to Ramnad, 29 feet N. of centre of road from Madura to Pamban, and 4 feet south of letters B.M. cut on S wall of temple opposite bench-mark. The temple is situated at S.E. corner of a large paka tank called Kenikkarai, ¼ mile E. of Ramnad town and near junction of roads from Madura to Pamban, and from Devipatnam to Ramnad.	19·807	19·822
2		BM.9 / 58 K	5·5	Mile-stone No. 6 from Ramnad and 20 from Pamban.	15·203	15·214
3		BM 10 / 58 K	7·5	Mile-stone No. 8 from Ramnad and 18 from Pamban.	15·596	15·608
4		BM 11 / 58 K	9·5	Mile-stone No. 10 from Ramnad and 16 from Pamban.	13·884	13·894
5		BM 12 / 58 K	11·5	Mile-stone No. 12 from Ramnad and 14 from Pamban.	8·120	8·126
6		BM.13 / 58 K	13·5	Mile-stone No. 14 from Ramnad and 12 from Pamban.	15·663	15·675
7		BM.25 / 58 O	15·3	G.T.S. ○ B.M. Cut on pavement at southern entrance to Perappanvalasa Chhattram.	14·145	14·155
	a/7	BM.26 / 58 O	15·3	G.T.S. □ B.M. Embedded opposite second pillar from E. of southern verandah of Perappanvalasa Chhattram, 18 feet from its S.E. corner. 26 feet from its southern entrance and 16 feet N.W. of a small well. The letters B.M. have been cut on second pillar, 10½ feet north of bench-mark. The Chhattram is situated on N. side of road from Ramnad to Pamban.	11·789	11·798
	1/7	BM.27 / 58 O	15·7	G.T.S. □ B.M. A test bench-mark for Pamban tidal station. Embedded 10 feet from both N.W. and S.W. corners of masjid and 7 feet from letters B.M. cut on W. wall of masjid which is ¼ mile W. of Perappanvalasa village.	12·103	12·112
8		BM.28 / 58 O	15·6	Mile-stone No. 16 from Ramnad and 10 from Pamban.	12·667	12·676
	a/8	BM.29 / 58 O	15·6	G.T.S. □ B.M. A test bench-mark for Pamban Tidal Station. Embedded in a block of masonry about 4 feet cube, and situated on N. side of road from Ramnad to Pamban, ¼ mile E. of Perappanvalasa Chhattram, 7½ feet north of telegraph post No. 82/6 (82 miles 24 chains from Madura) and 76 feet N.W. of mile-stone No. 16 from Ramnad and 10 from Pamban.	9·802	9·809
	1/8	BM.30 / 58 O	17·7	On top of rectangular protecting pillar of Ramaswami Madam, G.T. Survey Station, lat. 9° 16′ 1″·64, long. 79° 3′ 42″·05. A principal station of Ceylon Branch Series of the South-East Coast Series. (For description *see* Synoptical Volume).	51·690	51·728
9		BM.31 / 58 O	17·6	Mile-stone No. 18 from Ramnad and 8 from Pamban.	10·440	10·447
10		BM.32 / 58 O	19·6	Mile-stone No. 20 from Ramnad and 6 from Pamban.	7·878	7·884
11		BM.33 / 58 O	21·5	Mile-stone No. 22 from Ramnad and 4 from Pamban.	6·234	6·238
	a/11	BM.34 / 58 O	21·8	On top of rectangular protecting pillar of Marakayarpatnam G.T. Survey Station, lat. 9° 16′ 29″·56, long. 79° 7′ 50″·68. A principal station of Ceylon Branch Series of the South-East Coast Series. (For full description *see* Synoptical Volume).	61·683	61·729

Branch-Line 1A. (Ramnad to Pamban).

Designation of Bench-marks		Distance from Ramnad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
12	BM 35 / 58 O	23·2	G.T.S. ○ B.M. at Mandapam. Cut on west end of second footing from bottom of southern steps leading up to building called Chokkanai between telegraph posts Nos. 89/16 and 89/17 from Madura.	9·356	9·363
13	BM.36 / 58 O	23·6	Mile-stone No. 24 from Ramnad and 2 from Pamban.	7·880	7·886
14	BM 37 / 58 O	25·0	G.T.S. ○ B M Cut on N. corner of plinth of Marine Survey Obelisk, about 3 feet above ground level, between telegraph posts Nos. 91/11 and 91/12 from Madura.	7·831	7·837
15	BM.38 / 58 O	25·8	G.T.S. ○ B.M. Cut on pavement of Toniturai Chhattram opposite N. entrance door, and at foot of two upper steps leading into centre of raised platform immediately under dome.	9·863	9·870
a/15	BM 39 / 58 O	25·9	G.T.S. □ B.M. Embedded in lower platform of Toniturai Chhattram opposite northern door and at foot of two upper steps leading into central raised platform immediately under dome. The surface of bench-mark is flush with platform level. The Chhattram is situated on west bank of Pamban Pass, and north of telegraph cable-house	9·825	9·832
16	BM 40 / 58 O	27·4	G.T.S ○ B.M. at Pamban. Cut on S. plinth of Gibb's monument.	7·960	7·966
17	BM 41 / 58 O	27·4	G.T.S. □ B.M. at Pamban. Embedded close to N. W. wall of Fort about 3 chains south of telegraph office and 6 chains S. of Gibb's monument.	7·361	7·366
1/17	BM.42 / 58 O	29·1	Mile-stone No. 2 from Pamban and 6 from Rameswaram.	12·649	12·658
2/17	BM 43 / 58 O	31·0	G.T.S. ○ B.M. Cut on E. end of top step on N. side of paka tank called Mangalatirtham.	13·869	13·879
3/17	BM.44 / 58 O	33·5	Mile-stone No. 6 from Pamban and 2 from Rameswaram.	29·898	29·920
4/17	BM 45 / 58 O	34·9	G.T.S. ○ B.M. Cut on north end of outer sill at W. entrance of Rameswaram temple.	13·579	13·589
5/17	BM.46 / 58 O	36·2	On mark-stone of Gandhamana G. T. Survey Station, lat 9° 18′ 4″·42, long. 79° 18′ 23″·44. A principal station of Ceylon Branch Series of the South East Coast Series. (For full description *see* Synoptical Volume).	114·632	114·717
18	BM 47 / 58 O	27·8	G.T.S. □ B B.M. at Pamban. Embedded close to W. wall of telegraph store-room about 2 chains E. of cable-house.	7·043	7·048
19	BM.48 / 58 O	27·8	G.T.S □ A B.M. at Pamban, embedded close to W. wall of telegraph cable-house, and is bench-mark of reference of self-registering tide-gauge.	7·465	7·470

Main-Line 2. (Ramnad to Tuticorin).

Designation of Bench-marks			Distance from Ramnad	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM 8 / 58 K	0·0	G.T.S. □ B.M. at Ramnad. Embedded 22 and 7 feet respectively from S. W. and S. E. corners of Ganpati's temple (Puliyarkoil), 75 feet W. of centre of road from Devipatnam to Ramnad, 29 feet N. of centre of road from Madura to Pamban and 4 feet S. of letters B.M. cut on south wall of temple opposite bench-mark. The temple is situated at S. E. corner of a large paka tank called Kenikkarai, ¼ mile E. of Ramnad town, and near junction of roads from Madura to Pamban and from Devipatnam to Ramnad.	19·807	19·822
2		BM 14 / 58 K	1·3	G.T.S. ○ B.M. Cut on plinth at S. W. corner of S. W. bastion of fort at Ramnad.	20·843	20·858
	a / 2	BM.15 / 58 K	1·3	On top of circular pillar of Ramnad G. T. Survey Station, lat. 9° 21′ 51″·96, long. 78° 49″ 17″·66. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	48·067	48·082
3		BM.16 / 58 K	8·2	G.T.S. □ B.M. at Uttarakoshamangai. 7½ and 8½ feet respectively from N.E. and N.W. corners of Ganpati's temple (Puliyarkoil), 17 feet S. E. of N. E. corner of the highest Gopuram (tower) of Siva temple and 4 feet N. of letters B. M. cut on N. wall of Ganpati's temple, which is on the N. side of entrance below the highest Gopuram, and alongside the eastern wall of an enclosure round the Siva temple, in centre of Uttarakoshamangai village.	26·498	26·517
4		BM 17 / 58 K	8·2	G.T.S. ○ B.M. at Uttarakoshamangai. Cut on N. E. end of pavement of gateway below the highest Gopuram (tower) of the Siva temple.	27·835	27·856
5		BM.18 / 58 K	8·3	On top of circular pillar of Uttarakoshamangai G. T. Survey Station, lat. 9° 18′ 49″·60, long. 78° 44′ 24″·25. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	79·793	79·852
	a / 5	BM 19 / 58 K	16·3	G.T.S. ○ B.M. Cut on a flag-stone at base of a small temple to north of road from Ramnad to Tuticorin (Tutugudi) and 8 chains north of Sikkal Police Station.	28·960	29·019
6		BM.20 / 58 K	16·6	G.T.S. ○ B.M. Cut on a projecting stone at S. E. corner of Ganpati's temple at Sikkal village. It is a foot above ground level.	29·156	29·177
7		BM 21 / 58 K	19·4	G.T.S. ○ B.M. Cut on north end of step at entrance to Sundararaja-perumalkoil (temple) at Kottankulam village.	23·736	23·754
	1 / 7	BM.22 / 58 K	20·6	On ground level mark-stone of Tanichanthai G. T. Survey Station, lat. 9° 13′ 4″·19, long. 78° 37′ 46″·05. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	33·029	33·047
8		BM.23 / 58 K	21·5	G.T.S. ○ B.M. Cut on a Rest Stone on N. side of road from Ramnad to Tuticorin, about 1 mile E. of Seluvanur village.	32·693	32·717
9		BM 24 / 58 K	23·9	G.T.S. □ B.M. Embedded 13 and 11½ feet respectively from S. E. and N. E. corners of a Devikoil (goddess temple) and 5½ feet E. from the letters B. M. cut on E. wall of temple, at the N. E. end of Mela Seluvanur village and 16 chains N. of road from Ramnad to Tuticorin.	34·766	34·792

Main-Line 2. (Ramnad to Tuticorin).

Designation of Bench-marks		Distance from Ramnad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
10	BM.25 / 58 K	27·8	G.T.S. ○ B.M. Cut on top step at E. entrance on south side of a Chhattram at Kadugu Sandai village.	24·736	24·755
11	BM.26 / 58 K	32·0	G.T.S. ○ B.M. Cut on a projecting stone on E. side of Virabhadraswami's temple in centre of Sayalgudi village.	21·354	21·370
a / 11	BM 27 / 58 K	32·0	G.T.S. □ B.M. Embedded 9 and 5 feet respectively from N. E. and S. E. corners of Virabhadraswami's temple, 14½ feet N. W. from N. E. stone pillar of mandap, and 4½ feet due E. of letters B.M. cut on eastern wall of temple in centre of Sayalgudi village.	18·719	18·735
12	BM 28 / 58 K	40·5	G.T.S. ○ B.M. Cut on N. W. corner of basement of the monolith of Perumalkoil at N.W. end of Sevalpati village.	21·748	21·764
13	BM 29 / 58 K	41·1	G.T.S. ○ B.M. Cut on S. W. corner of well, about ½ mile S. of Sevalpati village.	20·833	20·849
14	BM 30 / 58 K	43·5	Mile-stone No. 8 from Vaippar and 1 from Tangammalpuram.	39·888	39·918
15	BM 31 / 58 K	46·6	G.T.S. ○ B.M. Cut on top of stone at W. side of well at north end of Melmandai village.	27·701	27·722
16	BM.32 / 58 K	47·0	G.T.S. □ B.M. Embedded 9 and 8½ feet respectively from N.W. and S.W. corners of Puliyarkoil (temple) and 218 feet S.E. from bench-mark No. 17. It is also 6¾ feet due W. of the letters B.M. cut on W. wall of the temple, on the south margin of road from Ramnad to Tuticorin, and at W. extremity of Melmandai village.	23·562	23·580
17	BM 33 / 58 K	47·1	G.T.S. ○ B.M. Cut on top of stone at S.E. corner of well about 10 chains S.W. of Melmandai Chhattram.	29·904	29·926
18	BM.34 / 58 K	51·4	G.T.S. ○ B.M. Cut on N. end of sill of main entrance to Visvanathswami's temple at Vaippar village.	23·283	23·300
19	BM.35 / 58 K	52·2	Mile-stone No. 1 from Vaippar and 17 from Otapidaram.	24·905	24·924
20	BM 36 / 58 K	54·2	Miles-tone No. 3 from Vaippar and 15 from Otapidaram.	37·317	37·345
21	BM.37 / 58 K	55·2	Mile-stone No. 4 from Vaippar and 14 from Otapidaram.	28·976	28·998
22	BM.38 / 58 K	55·7	G.T.S. ○ B.M. Cut on stone at foot of N.W. pillar of verandah on platform of Bhadrakali's temple at Kolattur village.	33·122	33·147

Main-Line 2. (Ramnad to Tuticorin).

Designation of Bench-marks			Distance from Ramnad	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
23		BM.39 / 58 K	55·7	G.T.S. □ B.M. Embedded 8½ feet S.W. from N.W. corner of wall enclosing Bhadrakali's temple, 27 feet south from centre of road from Ramnad to Tuticorin and 5½ feet due west from W. wall on which letters B.M. have been cut. The temple is at S.W. end of Kolattur village.	29·915	29·937
24		BM. 1 / 58 L	57·3	Miles-tone No. 6 from Vaippar and 12 from Otapidaram.	37·266	37·294
25		BM. 2 / 58 L	58·3	Mile-stone No. 7 from Vaippar and 11 from Otapidaram.	41·975	42·006
26		BM. 3 / 58 L	59·4	G.T.S. ○ B.M. Cut on S. end of second step from top and fourth from bottomof steps leading up to Puliyarkoil (temple) on E. margin of road from Ramnad to Tuticorin and at N. end of Vendanattam village.	47·179	47·214
27		BM. 4 / 58 L	61·3	Mile-stone No. 10 from Vaippar and 8 from Otapidaram.	69·252	69·304
28		BM. 5 / 58 L	62·3	Mile-stone No. 11 from Vaippar and 7 from Otapidaram.	76·456	76·513
29		BM. 6 / 58 L	63·3	Mile-stone No. 12 from Vaippar and 6 from Otapidaram.	81·059	81·120
	a / 29	BM. 7 / 58 L	66·3	G.T.S. ○ B.M. Cut on S.E. corner of fourth terrace of basement of monolithic pillar of Perumalkoil at N. end of Valasamudram village.	55·050	55·111
30		BM. 8 / 58 L	66·0	G.T.S. □ B.M. Embedded 7½ feet from both N.W. and S.W. corners of platform of Perumalkoil (temple) and 7 feet due W. of letters B.M. cut on W. face of platform. The Perumalkoil (a platform 3 × 3 × 3 feet with a stone lamp-post in the centre about 6 feet high) is on W. margin of road from Tuticorin to Etaiyapuram and at N. end of Valasamudram village.	51·879	51·918
	1 / 30	BM. 9 / 58 L	67·6	G.T.S. □ B.M. A test bench-mark for Tuticorin Tidal Station. Embedded 5½ and 6¼ feet respectively from N.W. and N.E. corners at Perumalkoil (temple) platform, and 5¼ feet due N. of letters B.M. cut on northern face of platform. The temple is at N.E. end of Periyanattam village.	69·809	69·848
	2 / 30	BM 10 / 58 L	68·8	G.T.S. □ B.M. A test bench-mark for Tuticorin Tidal Station. Embedded 5¾ feet from both S.W. and S.E. corners of platform of Perumalkoil (temple) and 5 feet due S. of letters B.M. cut on southern face of stone lamp-post of temple at S.W. end of Kumarapuram village.	37·981	38·020
31		BM.11 / 58 L	66·8	G.T.S. ○ B.M. Cut on north end of west parapet of bridge on main road from Tuticorin to Etaiyapuram, and 2½ chains N. of mile-stone No. 7 from Tuticorin.	49·882	49·920

Main-Line 2. (Ramnad to Tuticorin).

Designation of Bench-marks		Distance from Ramnad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
32	BM.12 / 58 L	67·7	G.T.S. ○ B.M. Cut on south end of W. parapet of bridge on main road from Tuticorin to Etaiyapuram, and 14 chains N. of mile-stone No. 6 from Tuticorin.	41·035	41·066
33	BM.13 / 58 L	68·9	Mile-stone No. 5 from Tuticorin and 22 from Etaiyapuram.	33·446	33·471
34	BM 14 / 58 L	69·9	Mile-stone No. 4 from Tuticorin and 23 from Etaiyapuram.	25·049	25·068
35	BM.15 / 58 L	70·9	Mile-stone No. 3 from Tuticorin and 24 from Etaiyapuram.	22·685	22·702
36	BM.16 / 58 L	71·9	Mile-stone No. 2 from Tuticorin and 25 from Etaiyapuram.	15·177	15·188
37	BM 17 / 58 L	73·7	G.T.S. ○ B.M. Cut on flooring of N. entrance to Pacceiperumal Settiyar's Chhattram at Tuticorin.	10·255	10·263
38	BM.18 / 58 L	74·2	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Tuticorin Railway Station.	6·037	6·042
a / 38	BM 19 / 58 L	74·2	Rail at Tuticorin Railway Station, opposite booking office.	4·992	4·997
39	BM.20 / 58 L	74·5	G.T.S. ↑ A.D. 1869. Cut on flag-stone in porch of protestant church (old Dutch).	5·635	5·639
a / 39	BM 21 / 58 L	74·7	G.T.S. ↑ A.D. 1869. Cut on flag-stone at S. E. corner of front verandah of Mr. Cocque's house.	5·305	5·309
40		74·6	Destroyed.	6·620	6·625

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks			Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1			0·0	Destroyed.	6·620	6·625
2		BM.22 / 58 L	0·0	G.T.S. ↑ A.D. 1869. at Tuticorin Custom House. Cut in a stone post fixed on E. edge of road, 33 feet S. of custom house flag-staff, 39 feet W. of shore end of public jetty and 532 feet S. of Bench-mark No. 3.	4·104	4·107
3		BM.20 / 58 L	0·1	G.T.S. ↑ A.D. 1869. at Tuticorin Church. Cut on flag-stone in porch of Protestant Church (old Dutch).	5·635	5·639
4		BM.18 / 58 L	0·4	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Tuticorin Railway Station.	6·037	6·042
5			2·0	Destroyed.	14·020	14·031
6			4·9	Destroyed.	35·924	35·951
7			7·0	Destroyed.	74·274	74·330
8			8·1	Destroyed.	88·843	88·910
9		BM 23 / 58 L	9·8	G.T.S. ○ B.M. at Tataparai Railway Station. Cut on platform coping opposite booking office.	97·668	97·742
	a / 9	BM 24 / 58 L	9·8	G.T.S. □ B.M. at Tataparai Railway Station. Embedded opposite N. wall of latrine, 20 feet from N. W. corner, and 21 feet from N. E. corner of latrine, 28 feet from nearest rail, and 9½ feet from letters B.M. cut on wall facing the bench-mark and about 1 foot below ground level.	95·218	95·289
10			11·0	Destroyed.	96·672	96·745
11			11·9	Destroyed.	101·577	101·654
12			12·8	Destroyed.	103·485	103·562
13			14·0	Destroyed.	113·080	113·165
14			15·6	Destroyed	140·461	140·566
15			17·5	Destroyed	184·090	184.228
16			18·3	Destroyed	205·214	205·368
	a / 16	BM.1 / 58 H	18·6	Rail at Maniyachi Railway Station, opposite booking office.	204·248	204·401

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
17	BM 2 / 58 H	18·5	G.T.S. □ B.M. at Maniyachi Railway Station. Embedded opposite E. wall of latrine, situated at W. end of passenger platform, 11 feet from both N. E. and S. E. corners of latrine, 15½ feet from near rail of main line, 14½ feet from near rail of Tinnevelly branch-line, and 7 feet from letters B. M. cut on E. wall of latrine.	204·053	204·206
a/17	BM 3 / 58 H	19·4	G.T.S. ○ B.M. Cut on E. parapet of culvert near telegraph post No. 427/22.	221·020	221·186
1/17	BM.4 / 58 H	21·9	G.T.S. ○ B.M. Cut on S.W. cap of bridge No. 1666 near telegraph post No. 430/10.	174·151	174·282
2/17	BM 5 / 58 H	24·5	G.T.S. ○ B.M. Cut on S.E. cap of girder bridge No. 1673 near telegraph post No. 433/2.	124·610	124·704
3/17	BM 6 / 58 H	25·9	G.T.S. ○ B.M. Cut on E. of N. abutment of large girder bridge between telegraph posts Nos. 434/11 and 434/14.	122·914	123·006
4/17	BM 7 / 58 H	28·1	G.T.S. ○ B.M. Cut on N.E. abutment of bridge No. 1685 near telegraph post No. 436/13.	138·021	138·125
5/17	BM 8 / 58 H	29·7	G.T.S. ○ B.M. at Rock. Cut on an out-cropping mass of granite near telegraph post No. 438/3.	142·671	142·780
6/17	BM 9 / 58 H	30·0	G.T.S. ○ B.M. Cut on E parapet of culvert No. 1689 near telegraph post No. 438/7.	143·676	143·784
6a/17	BM 10 / 58 H	31·8	G.T.S. ○ B.M. Cut on S.W. abutment of bridge No. 1693 near telegraph post No. 440/4.	137·524	137·628
6b/17	BM 11 / 58 H	33·3	G.T.S. ○ B.M. Cut on N.W. parapet of culvert No. 1698 near telegraph post No. 441/14.	148·741	148·853
7/17	BM 12 / 58 H	34·2	G.T.S. ○ B.M. Cut on S.E. abutment of bridge No. 1700 near telegraph post No. 442/12.	142·847	142·954
8/17	BM 13 / 58 H	36·2	G.T.S. ○ B.M. Cut on W. parapet of culvert No. 1716 between telegraph posts Nos. 444/12 and 444/13.	121·959	122·051
9/17	BM.14 / 58 H	37·1	B. ○ M. Cut on W. fender-stone of lamp-post on N. margin of road 19 chains W. of level crossing at Tinnevelly bridge railway station.	121·071	121·162

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
9a/17	BM.15/58 H	37·6	G.T.S. ○ B.M. Cut on N.E. corner of plinth of obelisk erected by R.R. Sulochanum Mudeliar in front of Tinnevelly bridge post office.	122·849	122·941
9b/17	BM 16/58 H	37·9	Top of N. fender-stone at E. end of Sulochanum bridge.	128·564	128·661
9c/17	BM.17/58 H	37·9	↑ Cut on top of S. fender-stone at E. end of Sulochanum bridge.	128·771	128·868
9d/17	BM 18/58 H	38·3	○ Cut over □ B.M. marked in tar on W. fender-stone of lamp-post on the main road to Palamcottah and about 10 chains S. of Sir Ramaswami Mudeliar's house at Palamcottah.	119·888	119·978
9e/17	BM 19/58 H	38·8	○ Cut on top of mile-stone No. 19 from Kytar on N. margin of main road about 2 chains N.E. of Mission Church, Palamcottah.	128·935	129·032
9f/17	BM 20/58 H	39·1	G.T.S. ○ B.M. at Mission Church, Palamcottah. Cut on E. end of 2nd step from top in corner formed by porch with wall of Church, C.M.S. Centenary, April 12, 1899.	136·165	136·267
9g/17	BM 21/58 H	40·2	Cut on top of stone prism, Capt. Herschel's B. M. No. 1, 1·6 feet high, embedded in the ground on N. margin of road about midway between two gates leading into Bungalow No. 81, and 16½ chains E. of Explosive Magazine.	153·134	153·249
10/17	BM 22/58 H	37·8	G.T.S. Standard Bench Mark 1908 Situated in compound of the Táluk kachahri, Tinnevelly, N. W. of building. From the bench-mark N.W. corner of main building is 109 feet S.W.; external corner of building is 172 feet. Centre of *paka* well and S.E. corner of front verandah bear respectively, 191° 30′ and 105° from the bench-mark.	126·874	126·969
10a/17	BM.23/58 H	37·8	○ B.M. at Táluk kachahri, Tinnevelly. Cut on S. end of second step about centre of W. face of building.	125·599	125·693
18	BM.24/58 H	19·7	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 424/7.	222·321	222·488
19	BM.25/58 H	20·5	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 423/10.	230·148	230·321
20	BM.26/58 H	21·3	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 422/15.	225·101	225·270
21	BM.27/58 H	22·6	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 421/9.	227·229	227·399

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
22	BM 28 / 58 H	24·7	G T S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 419/6.	278·271	278·479
23	BM 29 / 58 H	25·6	G T S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 418/7.	292·251	292·470
24	BM 30 / 58 H	27·0	G.T S. ○ B.M. Cut on N. end of E. parapet of bridge near telegraph post No. 417/2.	306·860	307·090
25	BM 31 / 58 H	28·2	G.T S. ○ B.M. at Kadambur Railway Station. Cut on platform coping opposite booking office.	291·876	292·095
a/25	BM 32 / 58 H	28·2	Rail at Kadambur Railway Station, opposite booking office.	290·939	291·157
b/25	BM 33 / 58 H	28·3	G.T.S. □ B.M. at Kadambur Railway Station. Embedded opposite E. wall of tank-house, 20½ feet from N E. corner, and 7½ feet from S.E. corner of tank-house, and 13 feet from nearest rail. The letters B.M. have been cut on wall facing the bench-mark. The tank-house is 425 feet S of station house.	289·076	289·292
26	BM.1 / 58 G	30·0	G.T.S. ○ B.M. Cut on S. abutment near E. end of bridge near telegraph post No. 414/2.	291·511	291·730
27	BM 2 / 58 G	31·1	G.T S. ○ B.M. Cut on S. abutment near E. end of bridge near telegraph post No. 412/16.	300·274	300·498
28	BM 3 / 58 G	32·3	G T S. ○ B M. Cut on S. abutment near E. end of bridge near telegraph post No. 411/14.	313·311	313·545
29	BM 4 / 58 G	33·1	G.T.S. ○ B M. Cut on S. abutment near E. end of bridge near telegraph post No. 410/16.	322·647	322·888
30	BM 5 / 58 G	33·5	G.T S. ○ B M. Cut on E. end of S. abutment of bridge near telegraph post No. 410/10.	326·390	326·633
31	BM.6 / 58 G	34·5	G T.S. ○ B.M. Cut on W. end of S abutment of bridge near telegraph post No. 409/9.	341·436	341·690
32	BM 7 / 58 G	35·5	G T.S. ○ B.M. at Kumarapuram Railway Station. Cut on N. end of goods platform.	353·949	354·213
33	BM.8 / 58 G	36·1	G.T S. ○ B M. Cut on W. end of S. abutment of bridge near telegraph post No. 407/16.	350·069	350·330

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
34	BM. 9 / 58 G	37·7	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 406/5.	341·331	341·585
35	BM.10 / 58 G	39·5	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 404/9.	334·659	334·908
36	BM 11 / 58 G	40·4	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 403/11.	323·410	323·650
1/36	BM 12 / 58 G	41·2	On top of rectangular protecting pillar of Koilpati G. T. Survey Hill Station, lat. 9° 9′ 40″·27, long. 77° 51′ 33″·63. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	545·641	546·047
37	BM 13 / 58 G	40·6	G.T.S. ○ B.M. Cut on W. abutment near S. end of bridge near telegraph post No. 403/6.	318·429	318·665
38	BM 14 / 58 G	41·2	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 402/14.	302·474	302·698
39	BM.15 / 58 G	42·0	G.T.S. ○ B.M. at Koilpati Railway Station. Cut on platform coping opposite booking office.	289·717	289·933
a/39	BM 16 / 58 G	42·0	Rail at Koilpati Railway Station, opposite booking office.	288·766	288·981
40	BM 17 / 58 G	42·0	G.T.S. □ B.M. at Koilpati Railway Station. Embedded opposite N. wall of E. latrine, 15 feet from its N.W. and 17 feet from its N.E. corner, 34 feet from nearest rail, and 9 feet from letters B.M. cut on N. wall of latrine.	285·352	285·564
41	BM 18 / 58 G	43·0	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 401.	273·610	273·813
42	BM 19 / 58 G	44·2	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 399/14.	270·531	270·732
43	BM.20 / 58 G	45·0	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 399/1.	259·573	259·766
44	BM.21 / 58 G	45·9	G.T.S. ○ B.M. Cut on N. abutment near W. end of bridge near telegraph post No. 398/2.	243·237	243·417
45	BM.22 / 58 G	47·1	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 396/16.	212·045	212·202

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
46	BM 23 / 58 G	48·1	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 395/16.	221·792	221·956
47	BM 24 / 58 G	49·5	□ ↑ Cut on N. end of E. parapet of bridge near telegraph post No. 394/9. Probably a railway bench-mark.	231·124	231·295
48	BM 25 / 58 G	50·5	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 393/9.	220·786	220·950
49	BM 26 / 58 G	51·3	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 392/13.	219·128	219·290
50	BM 27 / 58 G	53·8	G.T.S. ○ B.M. Cut on W. parapet of bridge near telegraph post No. 390/4.	210·900	211·056
51	BM 28 / 58 G	54·5	G.T.S. [7] B.M. Cut on E. end of pier No. 7 of girder bridge over river, ½ mile S. of Satur Railway Station.	210·648	210·804
52	BM 29 / 58 G	55·1	G.T.S. ○ B.M. Cut on platform coping opposite booking office, at Satur Railway Station.	208·098	208·252
a/52	BM 30 / 58 G	55·2	Rail at Satur Railway Station, opposite booking office.	207·280	207·433
53	BM 31 / 58 G	55·2	G.T.S. □ B.M. at Satur Railway Station Embedded opposite E. wall of latrine, 14½ feet from N. E. and 21 feet from S. E. corners, 12½ feet from nearest rail, and 5 feet from letters B.M. cut on E. wall of latrine.	207·846	208·000
54	BM 32 / 58 G	56·5	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 387/9.	218·205	218·365
55	BM 33 / 58 G	57·4	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 386/11.	229·075	229·243
56	BM.34 / 58 G	58·8	□ ↑ Cut on E. end of S. abutment of bridge near telegraph post No. 385/3.	248·762	248·945
57	BM.35 / 58 G	59·9	□ ↑ Cut on E end of S. abutment of bridge near telegraph post No. 384/2.	238·057	238·232
58	BM.36 / 58 G	60·6	G.T.S. [1] B.M. Cut on E. end of first pier from N., of girder bridge near telegraph post No. 383/5.	237·859	238·034

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
59	BM.37 / 58 G	62·3	G.T.S. ○ B.M. Cut on pavement of W. verandah of Railway Station Master's room.	268·669	268·867
1/59	BM.40 / 58 K	68·3	On top of rectangular protecting pillar of Kutiparai G. T. Survey Station lat. 9° 28′ 44″·87, long. 78° 0′ 37″·76. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	353·764	354·024
60	BM.38 / 58 G	63·7	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 380/4.	258·664	258·854
61	BM.39 / 58 G	64·1	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 379/14.	258·564	258·754
62	BM.40 / 58 G	64·9	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 379.	265·145	265·340
63	BM.41 / 58 G	65·5	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 378/8.	266·864	267·060
64	BM.42 / 58 G	67·1	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 376/14.	290·826	291·040
65	BM.43 / 58 G	68·3	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 375/12.	303·728	303·951
66	BM.44 / 58 G	69·4	G.T.S. ○ B.M. Cut on N. abutment near W. end and near W. rail, of girder bridge near telegraph post No. 374/10.	301·832	302·053
67	BM.45 / 58 G	70·4	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 373/10.	305·149	305·372
a/67	BM.46 / 58 G	71·8	Rail at Virudupati Railway Station, opposite booking office.	333·998	334·242
68	BM.47 / 58 G	71·8	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Virudupati Railway Station.	334·807	335·052
69	BM.48 / 58 G	71·9	G.T.S. □ B.M. at Virudupati Railway Station. Embedded near tank-house, 7¾ feet from N. E. and 19¾ feet from N.W. corners, 25¾ feet from S.E. corner of house over well, and 19 feet from nearest rail. The letters B.M. have been cut on wall at N. E. corner of tank-house.	333·922	334·166
70	BM.49 / 58 G	72·6	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 371/6.	328·727	328·967

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
71	BM.50 / 58 G	73·9	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 370/1.	342·322	342·572
72	BM.51 / 58 G	75·0	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 369.	360·908	361·171
73	BM.52 / 58 G	76·4	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 367/10.	390·860	391·145
74	BM 53 / 58 G	77·5	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 366/7.	384·047	384·326
75	BM.54 / 58 G	78·8	G.T.S. ○ B.M. Cut on pavement of E. verandah near booking office door at Kalligudi Railway Station.	361·517	361·780
76	BM.55 / 58 G	79·4	G.T.S. ○ B.M. Cut on W end of N. abutment of bridge near telegraph post No. 364/9.	362·490	362·753
77	BM 56 / 58 G	82·1	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 361/15.	377·264	377·536
78	BM.57 / 58 G	83·4	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 360/10.	385·332	385·612
79	BM 58 / 58 G	85·7	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 358/3.	395·250	395·537
80	BM 59 / 58 G	87·1	G T S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 356/14.	399·051	399·340
81	BM 60 / 58 G	87·8	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Tirumangalam Railway Station.	413·328	413·627
a/81	BM.61 / 58 G	87·9	Rail at Tirumangalam Railway Station, opposite booking office.	412·545	412·844
82	BM 62 / 58 G	87·9	G.T.S. □ B.M. at Tirumangalam Railway Station. Embedded near tank-house, 14½ feet from S. W. and 7 feet from S. E. corners, 6 feet from letters B.M. cut on wall facing bench-mark, and 23 feet from nearest rail.	410·487	410·784
83	BM.63 / 58 G	88·9	G.T.S. ○ B.M. Cut on N. parapet near W. end of culvert near telegraph post No. 355.	412·941	413·239
84	BM 41 / 58 K	89·8	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 354/2.	431·266	431·577

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
85	BM.42 / 58 K	91·6	G.T.S. ○ B.M. Cut on N. parapet of culvert near telegraph post No. 352/7.	443·522	443·843
86	BM.43 / 58 K	92·5	G.T.S. ○ B.M. Cut on E. end of N. parapet of bridge near telegraph post No. 351/7.	443·131	443·451
87	BM 44 / 58 K	94·4	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Tiruparankundram Railway Station.	468·050	468·388
88		96·3	Destroyed.	454·551	454·879
89	BM.45 / 58 K	97·0	G.T.S. ○ B.M. Cut on N. parapet of culvert near telegraph post No. 346/16.	440·188	440·505
90	BM 46 / 58 K	97·6	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 346/5.	438·432	438·747
91	BM.47 / 58 K	98·5	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Madura Railway Station.	439·439	439·755
a/91	BM.48 / 58 K	98·6	Rail at Madura Railway Station, opposite booking office.	438·480	438·795
92	BM 49 / 58 K	98·8	G.T.S. □ B.M. at Madura Railway Station. Embedded near angle formed by S. wall of goods-shed and E. wall of goods office or weighing house, an extension of goods-shed, 14 feet from S. E. corner of goods-shed, 5¾ feet from S. E. corner of goods office, and 5 feet from letters B.M. cut on E. wall of goods office.	437·695	438·010
1/92	BM.50 / 58 K	99·6	B.OM. Cut at N.W. corner of base of reservoir, on 2nd step, at S. end of Avnikal street.	436·833	437·148
1a/92	BM.51 / 58 K	100·1	G.T.S. ○ B.M. Cut on N. parapet on N.E. approach to large stone bridge across Vaigai river at Madura.	447·702	448·025
2/92	BM 52 / 58 K	100·4	○ Cut on S.E. corner of catch-water at Sir Ramaswami Mudelivar's hydrant opposite gate of Collector's bungalow at Madura.	436·406	436·720
3/92	BM.53 / 58 K	101·2	G.T.S. Standard Bench Mark 1907. at Madura. It is situated in civil station near water-works tower at point where road from Madura to Melur branches off from main road to Kitir.	445·020	445·340

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
93	BM 54 / 58 K	99·4	G.T.S. ○ B.M. Cut on E. end of S. abutment of girder bridge over Vaigai river, near telegraph post No. 344/8.	448·582	448·905
94	BM 55 / 58 K	101·0	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 342/16.	458·533	458·863
95	BM.56 / 58 K	102·2	G.T.S. ○ B.M. Cut on S. parapet of culvert near telegraph post No. 341/13.	468·442	468·779
96	BM 57 / 58 K	103·6	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 340/6.	474·242	474·583
97	BM 58 / 58 K	104·6	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 339/5.	489·513	489·866
98		106·2	Destroyed....	504·325	504·687
99	BM 59 / 58 K	107·8	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 336/1.	507·491	507·855
100	BM 1 / 58 F	109·1	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 334/14.	519·256	519·629
101	BM 2 / 58 F	110·6	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 333/5.	538·503	538·890
102	BM.3 / 58 F	111·7	G.T.S. □ B.M. at Sholavandan Railway Station. Embedded between tank-house and latrine, 7 feet from N.W. and 17¼ feet from S.W. corners of tank-house, 21¼ feet from N.E. corner of latrine, and 19¼ feet from nearest rail. The letters B.M. have been cut on W. wall of tank-house opposite bench-mark.	542·246	542·635
103	BM.4 / 58 F	111·7	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Sholavandan Railway Station.	544·113	544·504
a/103	BM.5 / 58 F	111·8	Rail at Sholavandan Railway Station, opposite booking office.	542·976	543·365
104	BM.6 / 58 F	112·5	G.T.S. ○ B.M. Cut on E. parapet of bridge near telegraph post No. 331/6.	548·238	548·631
105	BM.7 / 58 F	113·4	G.T.S. ○ B.M. Cut on S. end of E. parapet of bridge near telegraph post No. 330/9.	562·743	563·146

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
106	BM 8 / 58 F	114·9	G.T.S. ○ B.M. Cut on S. end of E. parapet of bridge near telegraph post No. 329.	583·141	583·558
107		116·1	Destroyed.	618·310	618·752
108	BM.9 / 58 F	117·6	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. $\frac{326}{4}$.	653·050	653·517
109	BM.10 / 58 F	118·9	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. $\frac{324}{17}$.	675·650	676·132
110		120·3	Destroyed.	681·195	681·681
111	BM.11 / 58 F	120·7	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. $\frac{323}{4}$. (Reported to have been displaced)	685·428	685·917
112		122·1	Destroyed.	727·777	728·296
113	BM 12 / 58 F	123·4	G.T.S. □ B.M. at Ammayanayakanur Railway Station. Embedded S. of goods-shed, 7 feet from its S.E. and 17 feet from its S.W. corners, 20 feet from nearest rail, and 6½ feet from letters B.M. cut on S. wall of goods-shed facing bench-mark.	783·658	784·216
114	BM 13 / 58 F	123·4	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Ammayanayakanur Railway Station.	783·605	784·163
a / 114	BM 14 / 58 F	123·6	Rail at Ammayanayakanur Railway Station, opposite booking office.	782·323	782·880
115		125·2	Destroyed.	804·885	805·458
116		126·6	Destroyed.	855·311	855·919
117		128·3	Destroyed.	946·172	946·844
118	BM.15 / 58 F	130·1	G.T.S. ○ B.M. Cut on pavement of W. verandah near booking office door at Ambaturai Railway Station.	995·013	995·718
119	BM.16 / 58 F	131·0	G.T.S. ○ B.M. Cut on N. end of E. parapet of bridge near telegraph post No. $\frac{312}{14}$.	978·748	979·442
120	BM.17 / 58 F	132·3	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. $\frac{311}{10}$.	964·174	964·856
121	BM.18 / 58 F	133·6	G.T.S. ○ B.M. Cut on W. parapet of bridge near telegraph post No. $\frac{310}{3}$.	924·603	925·258

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
122	BM 19 / 58 F	135·4	G.T.S. ○ B.M. Cut on W. end of N. parapet of bridge near telegraph post No. 308/8.	932·552	933·211
123	BM.20 / 58 F	136·6	G.T.S. ○ B.M. Cut on N. end of E. parapet of bridge near telegraph post No. 307/5.	921·820	922·472
a/123	BM 21 / 58 F	137·0	Rail at Dindigul (Tindukal) Railway Station, opposite booking office.	920·560	921·211
124	BM 22 / 58 F	137·0	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Dindigul Railway Station.	921·547	922·198
125	BM 23 / 58 F	137·1	G.T.S. □ B.M. at Dindigul Railway Station. Embedded in passenger platform between southern wall of tank-house and platform coping, 5 feet from S.W. and 12 feet from S.E. corners of tank-house, 12½ feet from platform coping and 26½ feet from water-pump. The letters B.M. have been cut on S. wall of tank-house opposite bench-mark.	921·365	922·015
126	BM 24 / 58 F	138·1	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 305/13.	914·418	915·063
127	BM 3 / 58 J	139·7	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 304/4.	884·309	884·933
128	BM 4 / 58 J	140·5	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 303/5.	864·607	865·217
129	BM 5 / 58 J	141·5	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 302/6.	864·109	864·718
130	BM.6 / 58 J	143·1	G.T.S. ○ B.M. Cut on N end of E. abutment of bridge near telegraph post No. 300/14.	866·034	866·645
131	BM.7 / 58 J	144·2	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 299/10.	882·281	882·903
132	BM.8 / 58 J	145·9	G.T.S. ○ B.M. Cut on W. end of N. parapet of bridge near telegraph post No. 298.	917·434	918·080
133	BM 9 / 58 J	147·1	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Vadamadura Railway Station.	966·317	966·996
a/133	BM.10 / 58 J	147·2	Rail at Vadamadura Railway Station, opposite booking office.	965·209	965·887

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
134	BM.11 / 58 J	147·2	G.T.S. □ B.M. at Vadamadura Railway Station. Embedded in passenger platform, between S. W. corner of latrine and platform coping, 5 feet from S. W. and 35 feet from S. E. corners of latrine, 11 feet from platform coping, 14 feet from nearest rail and 4 feet from letters B.M. cut on S. wall of latrine.	966·155	966·834
135	BM.12 / 58 J	149·4	G.T.S. ○ B.M. Cut on N. end of W. abutment of bridge near telegraph post No. 294/9.	994·746	995·446
136	BM.13 / 58 J	151·2	G.T.S. ○ B.M. Cut on N. end of W. abutment of bridge near telegraph post No. 292/11.	1050·861	1051·597
a/136	BM 14 / 58 J	152·3	Rail at Ayyalur Railway Station, opposite booking office.	1083·023	1083·783
137	BM.15 / 58 J	152·3	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Ayyalur Railway Station.	1084·052	1084·812
138	BM.16 / 58 J	153·3	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 290/8.	1070·864	1071·615
139	BM.17 / 58 J	154·5	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 289/6.	1012·909	1013·620
140	BM.18 / 58 J	155·5	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 288/5.	973·445	974·127
141	BM.19 / 58 J	156·8	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 287.	913·855	914·496
142	BM.20 / 58 J	157·9	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 285/16.	872·001	872·612
143	BM.21 / 58 J	159·8	G.T.S. ○ B.M. Cut on N. end of E. abutment of girder bridge near telegraph post No. 284.	810·897	811·466
144	BM.22 / 58 J	160·5	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 283/6.	794·555	795·112
145	BM.23 / 58 J	161·9	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 281/16.	739·476	739·993

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
146	BM.24 / 58 J	163·2	G.T.S. □ B.M. at Vaiyampati Railway Station. Embedded in passenger platform between water-tank and platform coping, 6 feet from S.W. and 18¼ feet from S.E. corners of water-tank, 11 feet from platform coping, 25½ feet from water-pump, 14 feet from nearest rail, and 5½ feet from letters B.M. cut on S. wall of tank.	711·548	712·046
147	BM 25 / 58 J	163·3	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Vaiyampati Railway Station.	710·212	710·709
a / 147	BM 26 / 58 J	163·4	Rail at Vaiyampati Railway Station, opposite booking office.	709·359	709·855
148	BM.27 / 58 J	164·2	G.T.S. ○ B.M. Cut on E. abutment at S. end of bridge near telegraph post No. 279/11.	686·128	686·608
149	BM.28 / 58 J	165·2	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 278/11.	662·287	662·750
150	BM 29 / 58 J	167·3	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 276/10.	608·236	608·661
151	BM 30 / 58 J	168·7	G.T.S. ○ B.M. Cut on W. end of N. parapet of bridge near telegraph post No. 275/2.	580·332	580·738
152	BM 31 / 58 J	169·3	G.T.S. ○ B.M. Cut on N. end of W. abutment of bridge near telegraph post No. 274/10.	570·106	570·504
153	BM 32 / 58 J	170·0	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 273/15.	562·083	562·475
154	BM.33 / 58 J	171·4	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 272/8.	514·443	514·802
a / 154	BM 34 / 58 J	172·0	Rail at Manaparai Railway Station, opposite booking office.	511·365	511·722
155	BM 35 / 58 J	172·0	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Manaparai Railway Station.	512·419	512·776
156	BM.36 / 58 J	172·0	G.T.S. □ B.M. at Manaparai Railway Station. Embedded N. of latrine in passenger platform, between latrine and platform coping, 5 feet from N.W. and 21½ feet from N.E. corners of latrine, 10¾ feet from platform coping, 13½ feet from nearest rail and 4 feet from letters B.M. cut on N. wall of latrine.	512·183	512·540
157	BM.37 / 58 J	172·4	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 271/7.	510·982	511·339

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
158	BM.38 / 58 J	173·9	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 269/15.	480·830	481·165
159	BM.39 / 58 J	175·1	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 268/14.	462·325	462·647
160	BM.40 / 58 J	176·6	G.T.S. ○ B.M. Cut on E. end of N. parapet of bridge near telegraph post No. 267/4.	434·495	434·798
161	BM.41 / 58 J	177·7	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 266/1.	420·229	420·521
162	BM.42 / 58 J	179·0	G.T.S. ○ B.M. Cut on N. parapet of bridge near telegraph post No. 264/16.	406·391	406·674
163	BM.43 / 58 J	180·1	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 263/12.	400·393	400·671
164	BM.44 / 58 J	181·1	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 262/12.	391·858	392·130
165	BM.45 / 58 J	181·4	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 262/6.	386·591	386·860
166	BM 46 / 58 J	183·0	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Kolattur South, Railway Station.	375·753	376·014
a/166	BM.47 / 58 J	183·0	Rail at Kolattur South, Railway Station, opposite booking office.	374·906	375·167
167	BM.48 / 58 J	183·0	G.T.S. □ B.M. at Kolattur South, Railway Station. Embedded S. of tank-house between platform coping and tank-house, 7 feet from S.E. and 16 feet from S.W. corners of tank-house, 12 feet from platform coping, 14½ feet from nearest rail, 24 feet from water-pump and 5 feet from letters B.M. cut on S. wall of tank-house facing bench-mark.	375·171	375·432
168	BM 49 / 58 J	184·0	G.T.S. ○ B.M. Cut near centre of S. abutment of bridge near telegraph post No. 259/14.	353·385	353·630
169	BM.50 / 58 J	185·6	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 258/4.	336·320	336·553

Main-Line 3. (Tuticorin to Trichinopoly).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
170	BM 51 / 58 J	186·6	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 257/4.	316·642	316·862
171	BM.52 / 58 J	187·9	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 255/17.	295·447	295·652
172	BM 53 / 58 J	190·1	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 253/14.	270·365	270·553
173	BM.54 / 58 J	192·0	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 251/15.	254·649	254·825
174	BM.55 / 58 J	192·5	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 251/6.	253·795	253·970
175	BM.56 / 58 J	194·4	G.T.S. □ B.M. at Trichinopoly Junction Railway Station. Embedded W. of station house, near N. E. corner of lamp-room adjoining latrine, 38½ feet N. of platform coping, 41 feet N. of nearest rail, 243 feet S. E. from S.E. corner of large railway office building, 110 feet S. W. of a well, 51 feet W. of western wall of kitchen adjoining station house, and 6½ feet N. E. from letters B.M. cut on wall at N. E. corner of lamp-room. The lamp-room and latrine are situated at W. end of station house.	273·651	273·840

Branch-Line 3A. (Tuticorin to Cape Comorin).

Designation of Bench-marks			Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1			0·0	Destroyed.	6·620	6·625
2		BM.20/58 L	0·1	G.T.S. ↑ A.D.1869 at Tuticorin Church. Cut on flag-stone in porch of Protestant Church (old Dutch).	5·635	5·639
	a/2	BM.22/58 L	0·2	G.T.S. ↑ A.D.1869 at Tuticorin Custom House. Cut in a stone post fixed on E. edge of road, 33 feet S. of custom house flag-staff, 39 feet W. of shore end of public jetty, and 532 feet S. of Bench-mark No. 2.	4·104	4·107
	b/2	BM.25/58 L	0·4	G.T.S. ↑ A.D.1869 at Tuticorin. Cut on a stone post fixed at N.W. corner of pedestal of cross in front of Goa Roman Catholic Church, 861 feet S. of Bench-mark No. a/2.	7·255	7·260
3		BM 26/58 L	2·2	Mile-stone No. 2 from Tuticorin to Palamcottah (Palaiyamkota).	10·478	10·486
4		BM 27/58 L	3·2	Mile-stone No. 3 from Tuticorin to Palamcottah.	13·333	13·343
5		BM 28/58 L	4·2	Mile-stone No. 4 from Tuticorin to Palamcottah.	12·564	12·573
	a/5	BM 29/58 L	5·2	Mile-stone No. 5 from Tuticorin to Palamcottah.	16·932	16·945
6		BM 30/58 L	6·2	Mile-stone No. 6 from Tuticorin to Palamcottah.	24·371	24·389
7		BM.31/58 L	7·2	Mile-stone No. 7 from Tuticorin to Palamcottah.	32·881	32·905
8		BM 32/58 L	8·1	West end of N. parapet wall of Pudukotai Bridge.	41·436	41·466
9		BM.33/58 L	9·2	Mile-stone No. 9 from Tuticorin to Palamcottah.	48·237	48·272
10		BM 34/58 L	10·2	Mile-stone No. 10 from Tuticorin to Palamcottah.	53·097	53·136
11		BM.34/58 H	11·2	Mile-stone No. 11 from Tuticorin to Palamcottah.	74·373	74·428
12		BM 35/58 H	13·2	Mile-stone No. 13 from Tuticorin to Palamcottah.	101·652	101·728
13		BM.36/58 H	14·1	W. end of S. retaining wall of dam (causeway), 192 feet E. of mile-stone No. 14.	107·534	107·614
14		BM.37/58 H	14·2	Mile-stone No. 14 from Tuticorin to Palamcottah.	109·864	109·946
15		BM.38/58 H	15·2	Mile-stone No. 15 from Tuticorin to Palamcottah.	125·414	125·507

Branch-Line 3A. (Tuticorin to Cape Comorin).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
16	BM 39 / 58 H	16·2	Mile-stone No. 16 from Tuticorin to Palamcottah.	145·223	145·331
17	BM 40 / 58 H	17·2	Mile-stone No 17 from Tuticorin to Palamcottah.	150·847	150·960
18	BM 41 / 58 H	18·2	Mile-stone No. 18 from Tuticorin to Palamcottah.	171·836	171·964
19	BM 42 / 58 H	20·2	Mile-stone No. 20 from Tuticorin to Palamcottah.	158·314	158·433
20	BM 43 / 58 H	21·2	Mile-stone No. 21 from Tuticorin to Palamcottah.	160·610	160·731
21	BM 44 / 58 H	22·2	Mile-stone No. 22 from Tuticorin to Palamcottah.	109·152	109·234
22	BM 45 / 58 H	23·2	Mile-stone No. 23 from Tuticorin to Palamcottah.	83·742	83·805
23	BM 46 / 58 H	24·2	Mile-stone No. 24 from Tuticorin to Palamcottah.	61·071	61·117
24	BM 47 / 58 H	24·7	Demarcation stone post. Marked with an arrow, on N. side of road, and 37 chains W. of mile-stone No. 24.	75·877	75·934
25	BM.48 / 58 H	24·8	Demarcation stone post Marked with an arrow, on N. side of road and 48 chains W. of mile-stone No. 24.	76·160	76·217
26	BM 49 / 58 H	25·2	Mile-stone No. 25 from Tuticorin to Palamcottah.	72·809	72·863
27	BM 50 / 58 H	26·2	Mile-stone No. 26 from Tuticorin to Palamcottah.	91·580	91·648
28	BM.51 / 58 H	27·2	Mile-stone No. 27 from Tuticorin to Palamcottah.	122·016	122·107
29	BM 52 / 58 H	28·2	Mile-stone No. 28 from Tuticorin to Palamcottah.	149·360	149·472
30	BM 53 / 58 H	29·2	Mile-stone No 29 from Tuticorin to Palamcottah.	158·526	158·645
31	BM.54 / 58 H	30·1	Stone post. On rising ground on S. side of road and 10 chains E of mile-stone No. 30.	166·545	166·670
32	BM.21 / 58 H	31·4	at Palamcottah. Cut on top of stone prism, Capt. Herschel's B.M. No 1, 1 6 feet high, near E. end of cantonment, about half-way between entrance gates leading to bungalow No. 81 and to N. side of road to Tuticorin, and 16½ chains E. of explosive magazine.	153·134	153·249
a / 32	BM.55 / 58 H	32·8	at Palamcottah. Mile-stone of dark granite on N. side of road and about 100 feet N.E. of E. gate of Tinnevelly (Tirunelveli) Mission Church.	127·893	127·990

Branch-Line 3A. (Tuticorin to Cape Comorin).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
33	BM.56 / 58 H	32·1	at Palamcottah. Fender-post of road tunnel, near and to S.W. of Travellers' bungalow, and about 150 feet from N.W. corner of compound wall.	139·707	139·812
34	BM.57 / 58 H	33·8	Mile-stone No. 2 from Palamcottah to Nanguneri.	152·052	152·167
35	BM.58 / 58 H	34·8	Mile-stone No. 3 from Palamcottah to Nanguneri.	180·541	180·678
36	BM.59 / 58 H	35·7	↑ at Boundary stone post. On E. side of road from Palamcottah to Nanguneri and 5·8 chains N. of mile-stone No. 4. It is square and about 3 feet high.	186·463	186·604
37	BM.60 / 58 H	35·8	Mile-stone No. 4 from Palamcottah to Nanguneri.	185·300	185·440
38	BM.61 / 58 H	36·8	Mile-stone No. 5 from Palamcottah to Nanguneri.	222·541	222·709
39	BM.62 / 58 H	37·8	Mile-stone No. 6 from Palamcottah to Nanguneri.	213·252	213·413
40	BM.63 / 58 H	38·8	Mile-stone No. 7 from Palamcottah to Nanguneri.	216·207	216·370
41	BM.64 / 58 H	39·8	Mile-stone No. 8 from Palamcottah to Nanguneri.	224·455	224·624
42	BM.65 / 58 H	41·8	Mile-stone No. 10 from Palamcottah to Nanguneri.	227·661	227·832
43	BM.66 / 58 H	43·7	Stone post on E. side of road and 8 chains N. of mile-stone No. 12.	266·425	266·624
44	BM.67 / 58 H	43·8	Mile-stone No. 12 from Palamcottah to Nanguneri.	267·856	268·057
45	BM.68 / 58 H	44·8	Mile-stone No. 13 from Palamcottah to Nanguneri.	300·202	300·428
a / 45	BM.69 / 58 L	46·8	Mile-stone No. 15 from Palamcottah to Nanguneri.	326·635	326·886
46	BM.70 / 58 H	47·8	Mile-stone No. 16 from Palamcottah to Nanguneri.	329·902	330·151
47	BM.71 / 58 H	50·2	Fend-post of road tunnel on S. side of Nanguneri town, and on W. side of road to Valiyur. The fend-post is 1 foot high.	307·353	307·585
48	BM.72 / 58 H	51·8	Mile-stone No. 20 from Palamcottah to Nanguneri.	264·920	265·120
49	BM.73 / 58 H	52·8	Large square post, 1·26 chains N.W. of mile-stone No. 21.	264·920	265·120
50	BM.74 / 58 H	54·8	Mile-stone No. 23 from Palamcottah to Nanguneri.	257·070	257·264

Branch-Line 3A. (Tuticorin to Cape Comorin).

Designation of Bench-marks		Distance from Tuticorin	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
51	BM.75 / 58 H	58·2	at Valiyur. Boundary post on E side of village, a low whitish stone about 70 feet S of point at which Tiruchendur road crosses Great old Southern Trunk-road.	293·496	293·717
52	BM 76 / 58 H	61·9	Large stone block, near an old well on W. side of new road from Valiyur to Radhapuram.	257·447	257·641
53	BM.77 / 58 H	66·8	Demarcation stone post marked with arrow-head, on upper bank of a water-course, 40 chains N. of road from Valiyur to Radhapuram. It is about 3 feet high.	175·770	175·901
54	BM 78 / 58 H	70·6	G.T S ↑ B M at Cape Comorin Base-line Tower Cut on upper surface of a pyramidal block of stone, 5 feet high, 27 inches square at base and 14 inches square at top, embedded 10½ feet S. of S arch of tower built over N end of Cape Comorin Base-line. The upper surface of stone is flush with ground and 0 47 of a foot above base-line measurement-mark	112·042	112·123
55	BM 79 / 58 H	70·6	Cape Comorin Base-line, N end, G T. Survey station, lat 8° 14′ 28″ 39, long 77° 41′ 51″ 97 A principal station of Great Arc Meridional Series—Section 8° to 18°, situated about 100 yards S W. of village of Paramesvaripuram and ¾ mile W by N of point where road from Idindakarai joins old road from Cape Comorin to Tiruchendur, in the lands of Paramesvaripuram village, taluk Nanguneri, district Tinnevelly Consists of a perforated and isolated pillar of masonry, surrounded by a hollow conical building, round and in contact with which is a tower of sun-dried bricks The mark employed in measurement of base-line and to which height given here refers, is a drilled hole 0 05 inch in diameter in a silver core to a substantial brass plug which was run in with lead into upper surface of a pyramidal block of stone built in foundation of tower, and provided with a brass covering plate, having a circle and dot on its upper surface Over brass plate, a title-stone, viz, a massive slab of granite 32 inches in diameter and 9 or 10 inches thick, was placed; on upper surface of stone the following inscription is engraved—"Great Trigonometrical Survey, Cape Comorin Base, A.D 1869", and which also carries a mark 11 inches above and in normal of measurement-mark on silver. The summit of pillar also carries a mark cut on a slab of sand-stone the height of which above measurement-mark on silver is 24 87 feet.	111·573	111·654
56	BM 80 / 58 H	71·7	On mark on title-stone of Cape Comorin Base-line, S End, G T Survey station, lat. 8° 13′ 0″ 43 long. 77° 11′ 42″ 81 A principal station of Great Arc Meridional Series—Section 8° to 18°, situated about 1,700 yards N E of Sanganeri village, about ⅓ mile S. of old road from Cape Comorin to Tiruchendur in lands of Sanganeri village, sub-division Radhapuram, district Tinnevelly. The station is similar in construction to that at N. end of base-line with following exceptions:—The mark on title-stone is 8·4 inches and that on summit of pillar 21 feet 9¼ inches respectively above measurement-mark on silver.	108·452	108·531

Main-Line 4. (Trichinopoly to Tanjore).

Designation of Bench-marks		Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.56 / 58 J	0·0	G.T.S. □ B.M. at Trichinopoly Junction Railway Station. Embedded W. of station house, near N.E. corner of lamp-room adjoining latrine, 38½ feet N. of platform coping, 41 feet N. of nearest rail, 243 feet S.E. from S.E. corner of large railway office building, 110 feet S.W. of a well, 51 feet W. of western wall of kitchen adjoining station house, and 6½ feet N.E. from letters B.M. cut on wall at N.E. corner of lamp-room. The lamp-room and latrine are situated at W. end of station house.	273·651	273·840
2	BM.57 / 58 J	0·1	G.T.S. ○ B.M. Cut on platform coping opposite passage (way out) for 1st and 2nd class passengers at Trichinopoly Junction Railway Station.	273·279	273·468
a/2	BM.58 / 58 J	0·1	Rail at Trichinopoly Junction Railway Station, opposite passage (way out) for 1st and 2nd class passengers.	272·291	272·479
3	BM 59 / 58 J	1·2	G.T.S. ○ B.M. Cut on N. end of W. abutment of bridge near telegraph post No. 248/5.	261·117	261·297
4	BM.60 / 58 J	2·3	G.T.S. ○ B.M. Cut on south parapet of bridge near telegraph post No. 247/3.	265·689	265·873
5	BM.61 / 58 J	4·1	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 245/7.	244·900	245·069
6	BM.62 / 58 J	5·5	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 244.	222·310	222·463
7	BM.63 / 58 J	6·3	G.T.S. □ B.M. at Tiruverumbur Railway Station. Embedded E. of station house, 8¼ feet from S.E. and 18 feet from N.E. corners of station house, and 5¾ feet from letters B.M. cut on E. wall of station house.	226·886	227·043
8	BM.64 / 58 J	6·9	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 242/10.	234·083	234·245
9	BM.65 / 58 J	7·4	G.T.S. ○ B.M. Cut on N. end of W. abutment of bridge near telegraph post No. 242/1.	236·876	237·040
10	BM.66 / 58 J	9·1	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 240/6.	230·022	230·180
11	BM.67 / 58 J	10·3	G.T.S. ○ B.M. Cut near centre of S. parapet of bridge near telegraph post No. 239/4.	230·810	230·969
12	BM.68 / 58 J	12·6	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 236/17.	209·711	209·856

Main-Line 4. (Trichinopoly to Tanjore).

Designation of Bench-marks		Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
13	BM 69 / 58 J	13·5	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 236.	199·925	200·063
14	BM 70 / 58 J	15·3	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 234/3.	188·657	188·788
15	BM 71 / 58 J	16·4	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 233/2.	182·692	182·818
16	BM 72 / 58 J	16·8	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 232/12.	180·554	180·679
17	BM.73 / 58 J	17·6	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 231/16.	177·697	177·820
18	BM 74 / 58 J	18·9	G.T.S. ○ B.M. Cut on N. end of W. abutment of bridge near telegraph post No. 230/10.	179·238	179·362
19	BM 75 / 58 J	20·3	G.T.S. □ B.M. at Budalur Railway Station. Embedded W. of tank-house, 9½ feet from S.W. and 12½ feet from N.W. corners of tank-house, 22¾ feet from nearest rail, and 37½ feet from water-pump S. of tank-house The letters B.M. have been cut on W. wall of tank-house near S.W. corner.	188·201	188·331
20	BM.76 / 58 J	21·1	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 228/7.	180·081	180·206
21	BM.30 / 58 N	22·0	G.T.S. ○ B.M. Cut on W end of S. parapet of bridge near telegraph post No. 227/8.	180·072	180·197
22	BM 31 / 58 N	23·4	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 226/2.	173·689	173·809
23	BM 32 / 58 N	24·7	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 224/14.	167·627	167·743
24	BM 33 / 58 N	26·0	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 223/7.	159·390	159·500
25	BM.34 / 58 N	27·3	G.T.S. ○ B.M. Cut on E. end of S. parapet of large masonry bridge near telegraph post No. 222/4.	164·582	164·696

Main-Line 4. (Trichinopoly to Tanjore).

Designation of Bench-marks		Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
26	BM.35 / 58 N	29·1	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. $\frac{220}{8}$.	181·748	181·874
27	BM 36 / 58 N	30·1	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. $\frac{219}{7}$.	193·277	193·411
28	BM.1 / 58 N	31·1	G.T.S. □ B.M. at Tanjore Railway Station. Embedded at angle formed by N. wall of old goods-shed and E. wall of goods office, 3½ feet N. of N. wall of old goods-shed, 7 feet N.W. of N.W. corner of step of goods-shed, 5 feet E. of E. wall of goods office, and 55 feet S.E. of telegraph post No. $\frac{218}{11}$. The letters B.M. are cut on E. wall of goods office to indicate position of bench-mark, which is 6 inches below ground level.	193·266	193·400

Main-Line 5. (Tanjore to Negapatam).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 1 / 58 N	0·0	G.T.S. □ B.M. at Tanjore Railway Station. Embedded at angle formed by N. wall of old goods-shed and E wall of goods office, 3½ feet N. of north wall of old goods-shed, 7 feet N.W of N.W. corner of step of goods-shed and 5 feet E. of E wall of goods office. The letters B M. are cut on E. wall of goods office.	193·266	193·400
2	BM 37 / 58 N	2·0	G.T.S. ○ B.M Cut on W end of N. parapet of bridge near telegraph post No. 220/10.	152·225	152·330
3	BM 38 / 58 N	4·3	G T S. ○ B.M. Cut on W. end of N. parapet of bridge near telegraph post No. 222/16.	143·214	143·313
a/3	BM 39 / 58 N	5·4	On top of rectangular protecting pillar of Raramutiraikota, G. T Survey Trestle Station, lat 10° 45′ 56″·99, long 79° 12′ 42″ 44. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	154·513	154·620
4	BM 40 / 58 N	5·3	G.T S. ○ B M. Cut on S. parapet of bridge near telegraph post No. 223/14.	140·656	140·753
5	BM 41 / 58 N	7·4	G.T S. ○ B M. Cut on N. parapet of bridge near telegraph post No. 226.	133·504	133·597
6	BM 42 / 58 N	8·7	G T S. ○ B.M. Cut on coping at E end of S. parapet of bridge near telegraph post No 227/5.	126·547	126·635
a/6	BM.43 / 58 N	9·2	Rail at Saliyamangalam Railway Station, opposite booking office.	119·261	119·344
7	BM 44 / 58 N	9·2	G.T.S. ○ B M Cut on platform coping opposite booking office at Saliyamangalam Railway Station.	120·408	120·491
8	BM 45 / 58 N	9·3	G.T.S. □ B.M. at Saliyamangalam Railway Station. Embedded 6 and 19½ feet respectively from S.W. and N.W. corners of goods-shed, and 13 feet from nearest rail The letters B.M. are cut on W. wall of goods-shed opposite bench-mark.	120·583	120·667
9	BM.46 / 58 N	10·3	G.T.S ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 228/16.	115·714	115·794
10	BM 47 / 58 N	12·3	G.T S. ○ B.M. at Ammapettai Railway Station. Cut on N.E. end of masonry support of distant semaphore near telegraph post No. 230/16.	105·584	105·657
11	BM 48 / 58 N	12·5	G.T.S ○ B.M. at Ammapettai Railway Station. Cut on E. parapet of culvert at level crossing.	105·418	105·491

Main-Line 5. (Tanjore to Negapatam).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
12	BM.49 / 58 N	14·5	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 233/3.	92·421	92·485
13	BM.50 / 58 N	16·1	G.T.S. ○ B.M. Cut on E. end of south parapet of bridge near telegraph post No. 234/15.	82·792	82·849
14	BM 51 / 58 N	17·2	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 235/17.	79·231	79·286
15	BM 52 / 58 N	17·7	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 236/6.	75·472	75·524
16	BM 53 / 58 N	17·9	G.T.S. ○ B.M. Cut on E. abutment at E. end of N. girder of bridge near telegraph post No. 236/10.	74·882	74·934
17	BM 54 / 58 N	18·6	G.T.S. □ B.M. at Nidamangalam Railway Station. Embedded 6 feet S.E. of S.E. corner of goods-shed, 45 feet N. of water-pump, 70 feet N.W. of N.W. corner of tank-house, and 39 feet N.W. of W. end of passenger platform. The letters B.M. are cut on S.E. corner of goods-shed.	76·429	76·482
18	BM.55 / 58 N	18·6	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Nidamangalam Railway Station.	77·942	77·996
a/18	BM.56 / 58 N	18·6	Rail at Nidamangalam Railway Station, opposite booking office.	76·844	76·897
19	BM.57 / 58 N	19·4	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. 238/3.	76·162	76·215
20	BM.58 / 58 N	20·8	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 239/9.	66·343	66·389
21	BM.59 / 58 N	21·9	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 240/12.	60·887	60·929
22	BM.60 / 58 N	23·1	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 241/14.	62·248	62·291
a/22	BM.61 / 58 N	23·7	Rail at Koradacheri Railway Station, opposite booking office.	63·117	63·161
23	BM.62 / 58 N	23·7	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Koradacheri Railway Station.	65·394	65·439

Main-Line 5. (Tanjore to Negapatam).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
24	BM.63 / 58 N	25·3	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 244/2.	56·837	56·876
25	BM 64 / 58 N	26·8	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 245/9.	51·918	51·954
26	BM 65 / 58 N	28·3	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 247/1.	48·317	48·350
a/26	BM 66 / 58 N	30·1	Rail at Kulikkarai Railway Station, opposite name-board.	46·053	46·085
27	BM 67 / 58 N	30·1	G.T.S. ○ B.M. at Kulikkarai Railway Station. Cut on platform coping opposite name-board of station.	47·104	47·137
28	BM 68 / 58 N	30·1	G.T.S. □ B.M. at Kulikkarai Railway Station. Embedded 14½ and 8 feet respectively from N.W. and S.W. corners of goods-shed and 16½ feet from nearest rail. The letters B.M. are cut on W. wall of goods-shed opposite bench-mark.	45·219	45·250
29	BM 69 / 58 N	31·6	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 250/6.	43·815	43·845
30	BM 70 / 58 N	33·0	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 251/15.	38·384	38·410
a/30	BM 71 / 58 N	33·7	Rail at Tiruvalur Railway Station, opposite booking office.	37·454	37·480
31	BM 72 / 58 N	33·7	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Tiruvalur Railway Station.	39·525	39·553
1/31	BM 73 / 58 N	34·9	G.T.S. ○ B.M. Cut on N.W. corner of pavement of gateway immediately below W. gopuram of temple at Tiruvalur on which G. T. Survey station is situated: pavement is flush with ground.	39·871	39·899
2/31	BM.74 / 58 N	34·9	On top of pillar of Tiruvalur Gopuram, G. T. Survey Station, lat. 10° 46′ 29″·50, long. 79° 38′ 0″·63. A station of Negapatam Secondary Series. (For full description *see* Synoptical Volume). *Note*—This station was not actually observed to, but the height was deduced by adding the height of the gopuram to that of B.M. No. 1/31.	145·206	145·307
32	BM.75 / 58 N	35·1	G.T.S. ○ B.M. Cut on centre of N. parapet of bridge near telegraph post No. 253/14.	30·908	30·929

Main-Line 5. (Tanjore to Negapatam).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
33	BM.76 / 58 N	35·8	G.T.S. ○ B.M. Cut on centre of S. parapet of bridge near telegraph post No. 254/12.	31·342	31·363
34	BM.77 / 58 N	37·2	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 256/2.	28·833	28·853
35	BM.78 / 58 N	38·8	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 257/12.	25·521	25·539
36	BM.79 / 58 N	40·1	G.T.S. ○ B.M. Cut on E. end of N. parapet of bridge near telegraph post No. 259/1.	21·157	21·172
37	BM.80 / 58 N	40·8	G.T.S. □ B.M. at Kivalur Railway Station. Embedded 13½ and 5¾ feet respectively from S.W. and N.W. corners of gangman's hut and 17 feet from nearest rail. The letters B.M. have been cut on W. wall of hut opposite bench-mark. The gangman's hut is on south side of Railway line and opposite station house.	19·216	19·229
a/37	BM.81 / 58 N	40·8	Rail at Kivalur Railway Station, opposite booking office.	24·121	24·138
1a/37	BM.82 / 58 N	41·4	G.T.S. □ B.M. A test bench-mark for Negapatam Tidal Station. Embedded opposite N. door of Chhattram, 30½ and 28½ feet, respectively, from N.W. and N.E. corners of Chhattram, and 83 feet E. of centre of main road. The B.M. is about 3 inches below ground level and covered with a mound of earth 5 feet high The Chhattram is 50 chains S. of Kivalur Railway Station on E. margin of main road from Kivalur to Kachanam and about ¼ mile N.W. of Puludigudi village within whose boundaries it lies.	19·964	19·978
1/37	BM.83 / 58 N	41·8	G.T.S. □ B.M. A test bench-mark for Negapatam Tidal Station. Embedded at foot of gopuram near E. wall and N. of east entrance to temple, 0·83 foot below outer sill of gate-way. The letters B.M. have been cut on N. cornice of gate opposite bench-mark. The gopuram is in centre of Kivalur village, 1 mile N. of Kivalur Railway Station.	28·026	28·045
2/37	BM.84 / 58 N	41·8	On top of circular pillar of Kivalur Gopuram, G.T. Survey station, lat. 10° 45′ 57″·92, long. 79° 44′ 32″·50. A station of Negapatam Secondary Series. (For description *see* Synoptical Volume).	99·820	99·889
38	BM.85 / 58 N	43·2	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 262/2.	19·393	19·406
39	BM.86 / 58 N	44·2	G.T.S. ○ B.M. Cut on south parapet of bridge near telegraph post No. 263/3.	13·387	13·396

Main-Line 5. (Tanjore to Negapatam).

Designation of Bench-marks		Distance from Tanjore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/39	BM 87/58 N	44·6	Rail at Sikkil Railway Station, opposite name-board.	16·249	16·260
40	BM 88/58 N	44·6	G.T.S. ○ B.M. Cut on platform coping opposite name-board at Sikkil Railway Station.	17·233	17·245
41	BM 89/58 N	46·6	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 265/9.	6·177	6·181
42	BM 90/58 N	47·3	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 266/4.	10·395	10·402
43		47·7	Destroyed.	12·671	12·680
44		47·8	Destroyed.	12·744	12·753
45		48·2	Destroyed.	4·194	4·197
46	BM 91/58 N	48·3	G.T.S. ○ B B.M. at Negapatam. Cut on a stone about 1 foot square and 6 inches deep, embedded in the marine office opposite the master attendant's office window.	9·613	9·620
1/46	BM 92/58 N	50·0	○ Cut on mile-stone No. 2 from Negapatam.	19·060	19·073
2/46	BM.93/58 N	52·6	On top of circular pillar of Nagore Gopuram, G.T. Survey station, lat 10° 49′ 10″·03, long 79° 50′ 22″·41. A station of Negapatam Secondary Series. (For description *see* Synoptical Volume).	73·309	73·360
3/46	BM 94/58 N	52·6	G.T.S. ○ B.M. Cut on 2nd offset of N. cornice of gate-way of Nagore Gopuram.	16·689	16·701
47	BM 95/58 N	48·3	G.T.S. ○ A B.M. at Negapatam. Cut on a stone about 1 foot square and 6 inches deep, embedded in the Marine office verandah immediately opposite the custom office window. This is bench-mark of reference of the Self-Registering Tide-Gauge.	9·608	9·615
1/47	BM 96/58 N	48·7	G.T.S. ○ B.M. Cut on coping at E. end of passenger platform at Negapatam Railway Station.	12·759	12·768
1a/47	BM 97/58 N	50·0	○ B.M. Cut on W. end of 2nd step from bottom at S. side of platform in front of middle entrance to Collector's Kachahri, Negapatam.	16·826	16·838
2/47	BM.98/58 N	50·0	G.T.S. Standard Bench Mark 1907. Situated in compound of public offices, Negapatam. The following are distances and bearings, respectively, of surrounding objects from bench-mark:—N.E. corners of sub-judge's court-house 106 feet, 277°15′; N.W. corner of Post Office 121 feet, 153°10′.	17·053	17·065

Main-Line 6. (Trichinopoly to Erode).

Designation of Bench-marks			Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM 56 / 58 J	0·0	G.T.S. □ B.M. at Trichinopoly Railway Station. Embedded W. of station house, near N.E. corner of lamp-room, 38½ feet N. of platform coping, 41 feet N. of nearest rail, 243 feet S.E. from S E. corner of large Railway office building, 110 feet S.W. of a well, 51 feet W. of western wall of kitchen adjoining station house, and 6½ feet N.E. from letters B.M. cut on wall at N.E. corner of lamp-room.	273·651	273·840
	1/1	BM.77 / 58 J	1·3	G.T.S. ○ B.M. Cut on N. end of platform coping at Trichinopoly Palakarai Railway Station.	254·104	254·280
	2/1	BM.78 / 58 J	1·4	G.T.S. ○ B.M. Cut on S. end of bridge No. E 17 near mile-plate No. E 253.	250·424	250·597
	3/1	BM.79 / 58 J	2·5	G.T.S. ○ B.M. Cut at S. end of platform coping at Trichinopoly Fort Railway Station.	227·771	227·929
	3a/1	BM 80 / 58 J	2·6	G.T.S. ○ B.M. at Trichinopoly Fort Railway Station. Cut on a large stone in centre of platform in front of projection of 1st and 2nd class passengers' booking office.	228·035	228·193
2		BM.57 / 58 J	0·1	G.T.S. ○ B.M. at Trichinopoly Railway Station. Cut on platform coping opposite passage (way out) for 1st and 2nd class passengers.	273·279	273·468
	1/2	BM 81 / 58 J	0·2	○ B.M. at Spalding Memorial Well, Trichinopoly. Cut on S. end of semi-circular parapet of catch-water round well.	268·466	268·651
	2/2	BM.82 / 58 J	1·7	G T.S. Standard Bench Mark 1907 at Trichinopoly. Situated in compound of Executive Engineer's office (P.W.D.) and enclosed on two sides by railings and on other two by E. and S. walls of compound. S.E. corner of E. projection of building 107 feet 6 inches distant bears 259° 35′ and S E. angle of compound wall 8 feet distant bears 116° 30′ from bench-mark.	256·304	256·481
3			0·3	Destroyed.	272·587	272·776
4		BM 83 / 58 J	1·4	G.T.S. ○ B.M. Cut on S. end of E. parapet of bridge near telegraph post No. 250/15.	250·429	250·602
5			2·5	Destroyed.	228·758	228·916
6		BM.84 / 58 J	3·5	G.T.S. ○ B.M. Cut on S. end of E. parapet of S. abutment of bridge near telegraph post No. 253.	233·524	233·685
7		BM.85 / 58 J	4·8	G.T.S. ○ B.M. Cut on E. end of N. parapet of bridge near telegraph post No. 254/6.	231·661	231·821
8		BM.86 / 58 J	7·1	Small masonry pillar on N. side of rail opposite telegraph post No. 256/12.	237·738	237·902

Main-Line 6. (Trichinopoly to Erode).

Designation of Bench-marks		Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
9	BM 87 / 58 J	8·5	G T S ○ B M. Cut on W. end of S. parapet of bridge near telegraph post No. 258/1.	242·528	242·695
10	BM.88 / 58 J	9·7	G T S ○ B M. Cut on E. end of N. parapet of bridge near telegraph post No. 259/5.	246·386	246·555
a/10	BM 89 / 58 J	11·9	G.T.S. □ B M. at Elamanur Railway Station. Embedded W. of goods-shed, 17¼ feet from N.W. and 8 feet from S.W. corners, 72½ feet from water-pump, 63¾ feet from E end of passenger platform, 17½ feet from nearest rail, 116 feet from E. wall of station house and 6½ feet from letters B.M. cut on W. wall of goods-shed opposite bench-mark.	252·645	252·819
11	BM 90 / 58 J	11·9	G T S ○ B M Cut on platform coping opposite booking office at Elamanur Railway Station.	254·377	254·552
a/11	BM 91 / 58 J	11·9	Rail at Elamanur Railway Station, opposite booking office.	253·360	253·535
12	BM 92 / 58 J	14·3	G T S ○ B.M Cut on E. end of N. parapet of bridge near telegraph post No. 263/18.	260·729	260·909
13	BM 93 / 58 J	15·8	G T S ○ B M Cut on E. end of S. parapet of bridge near telegraph post No. 265/9.	264·303	264 485
14	BM 94 / 58 J	17·8	G T S ○ B M. Cut on W. end of S. parapet of bridge near telegraph post No. 267/9.	277·999	278·190
15	BM.95 / 58 J	18·6	G T S ○ B M Cut on W. end of N. parapet of bridge near telegraph post No. 268/5.	279·265	279·457
16	BM.96 / 58 J	20·2	G T S ○ B M Cut on W. end of S. parapet of bridge near telegraph post No 269/18.	283·421	283 615
17	BM 97 / 58 J	20·6	G.T S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 270/6.	284·790	284·986
a/17	BM.98 / 58 J	22·9	Rail at Kulittalai Railway Station, opposite booking office.	292·786	292·987
18	BM 99 / 58 J	22·9	G T S. ○ B.M. Cut on platform coping opposite booking office at Kulittalai Railway station.	293·609	293·811
19	BM.100 / 58 J	23·0	G.T.S. □ B M. at Kulittalai Railway Station. Embedded opposite W. wall of tank-house, 8½ feet from both its S W. and N.W corners, 38 feet from nearest rail, and 5 feet from letters B.M. cut on W. wall of tank-house.	291·006	291·206

Main-Line 6. (Trichinopoly to Erode).

Designation of Bench-marks		Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
20	BM.101 / 58 J	23·7	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 273/6.	291·579	291·780
21	BM.102 / 58 J	25·8	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 275/8.	298·328	298·532
22	BM 103 / 58 J	26·4	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge near telegraph post No. 276/1.	304·937	305·146
23	BM 104 / 58 J	28·7	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Lalapettai Railway Station.	316·983	317·200
a/23	BM.105 / 58 J	28·8	Rail at Lalapettai Railway Station, opposite booking office.	315·830	316·047
24	BM.106 / 58 J	28·9	G.T.S. □ B.M. at Lalapettai Railway Station. Embedded W. of tank-house, 8 feet from S.W. and N.W. corners, 15½ feet from nearest rail, 36 feet from well, and 5 feet from letters B.M. cut on W. wall of tank-house.	313·847	314·062
25	BM.107 / 58 J	29·2	G.T.S. ○ B.M. Cut on west end of north parapet of bridge near telegraph post No. 278/17.	315·408	315·624
26	BM.108 / 58 J	31·9	G.T.S. ○ B.M. Cut on E. end of N. parapet of bridge near telegraph post No. 281/11.	323·015	323·237
27	BM.109 / 58 J	33·8	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 283/9.	330·735	330·962
28	BM.110 / 58 J	35·3	G.T.S. ○ B.M. Cut on W. end of N. parapet of bridge near telegraph post No. 285.	336·430	336·661
a/28	BM.111 / 58 J	35·8	Rail at Katalai Railway Station, opposite booking office.	344·521	344·757
29	BM 112 / 58 J	35·8	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Katalai Railway Station.	345·450	345·687
a/29	BM.113 / 58 J	35·9	G.T.S. □ B.M. at Katalai Railway Station. Embedded behind station house, 5¼ feet from W. corner and 71¾ feet from well. The letters B.M. have been cut on back or N.W. wall of station house, facing bench-mark.	346·551	346·788
30	BM.114 / 58 J	37·1	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 286/16.	342·540	342·776

Main-Line 6. (Trichinopoly to Erode).

Designation of Bench-marks		Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
31	BM 115 / 58 J	38·5	G T S. ○ B M. Cut on S. end of E. abutment of bridge near telegraph post No. 288/3.	346·583	346·821
32	BM.116 / 58 J	39·5	G.T.S. ○ B M. Cut on N. end of W. abutment of bridge near telegraph post No. 289/4.	358·448	358·694
33	BM.117 / 58 J	40·8	G T S. ○ B M. Cut on W end of N. parapet of bridge near telegraph post No. 290/11.	369·394	369·647
34	BM.118 / 58 J	42·3	G T.S. ○ B M. Cut on E end of N. parapet of bridge near telegraph post No. 291/19.	367·170	367·422
35	BM.119 / 58 J	43·7	G T S. ○ B.M. Cut on E end of N. parapet of bridge near telegraph post No. 293/9.	377·786	378·045
36	BM.120 / 58 J	45·0	G.T S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 294/15.	380·769	381·030
37	BM.121 / 58 J	46·1	G T S. ○ B M. Cut on W end of S. parapet of bridge near telegraph post No. 295/17.	386·116	386·381
38	BM 122 / 58 J	46·6	G T S. ○ B M. Cut on N. end of E. abutment of girder bridge over Amaravati river near telegraph post No. 296/7.	390·296	390·564
a/38	BM.123 / 58 J	46·9	Rail at Karur Railway Station opposite station master's room.	389·561	389·828
39	BM 124 / 58 J	46·9	G T S. ○ B M. at Karur Railway Station. Cut on platform coping opposite station master's room.	391·517	391·786
40	BM 125 / 58 J	46·9	G T S. □ B M at Karur Railway Station. Embedded W. of tank-house, 10½ feet from N.W. and S.W. corners, 15¾ feet from nearest rail and 4 feet from west wall of tank-house on which letters B M. have been cut.	387·944	388·210
41	BM.126 / 58 J	47·3	G.T S. ○ B M. Cut on E. end of N. parapet of bridge near telegraph post No. 297/2.	391·717	391·986
42	BM 127 / 58 J	48·4	G T S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 298/4.	407·061	407·340
43	BM 128 / 58 J	49·7	G.T.S. ○ B.M Cut on S. end of E. parapet of bridge near telegraph post No. 299/10.	435·994	436·293

Main-Line 6. (Trichinopoly to Erode).

Designation of Bench-marks		Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
44	BM.129 / 58 J	51·4	G.T.S. ○ B.M. Cut on rock *in situ*, E. of railway line, near telegraph post No. 301/4.	504·480	504·825
45	BM.1 / 58 I	52·8	G.T.S. ○ B.M. Cut on E. parapet of bridge near telegraph post No. 302/12.	510·043	510·392
46	BM.2 / 58 I	54·0	G.T.S. ○ B.M. Cut on W. end of N. parapet of bridge near telegraph post No. 303/16.	503·159	503·503
47	BM 3 / 58 I	55·2	G.T.S. ○ B.M. Cut on W. end of N. parapet of bridge near telegraph post No. 304/19.	494·432	494·769
a/47	BM 4 / 58 I	56·1	Rail at Pugalur Railway Station, opposite booking office.	505·046	505·391
48	BM 1 / 58 E	56·1	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Pugalur Railway Station.	506·102	506·448
49	BM 2 / 58 E	56·1	G.T.S. □ B.M. at Pugalur Railway Station. Embedded W. of goods-shed, 5¾ feet from its N.W. and 19 feet from its S.W. corners, 28¼ feet from platform coping, 31 feet from nearest rail and 4 feet from W. wall of goods-shed on which letters B.M. have been cut.	504·946	505·291
50	BM 3 / 58 E	57·6	G.T.S. ○ B.M. Cut on E. end of N. parapet of bridge near telegraph post No. 307/8.	445·241	445·545
51	BM.4 / 58 E	58·8	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 308/12.	423·549	423·839
52	BM.5 / 58 E	59·9	G.T.S. ○ B M Cut on S. end of W. abutment of bridge near telegraph post No. 309/14.	423·787	424·077
53	BM 6 / 58 E	61·0	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 310/16.	426·387	426·678
54	BM 7 / 58 E	62·6	G.T.S. ○ B.M. Cut on W end of N. parapet of bridge near telegraph post No. 312/8.	432·398	432·693
a/54	BM.8 / 58 E	63·5	Rail at Kodumudi Railway Station, opposite booking office.	429·534	429·827
55	BM.9 / 58 E	63·5	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Kodumudi Railway Station.	431·409	431·703

Main-Line 6. (Trichinopoly to Erode).

Designation of Bench-marks		Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1/55	BM 10/58 E	64·8	Mile-stone No. 1 from Kodumudi and No. 3 from Mutur.	455·566	455·877
2/55	BM 11/58 E	65·8	Mile-stone No. 2 from Kodumudi and No. 2 from Mutur.	505·350	505·695
3/55	BM 12/58 E	67·1	On top of rectangular protecting pillar of Yettimalai, G.T. Survey Station, lat. 11° 3′ 50″·00, long 77° 50′ 47″·10. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	618·406	618·828
56	BM 13/58 E	63·9	G.T.S. ○ B.M. at Kodumudi Railway Station. Cut on S.W. corner of 2nd terrace from bottom of masonry support of N. semaphore near telegraph post No. 313/14.	431·241	431·535
57	BM 14/58 E	65·9	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 315/13.	433·825	434·121
58	BM 15/58 E	67·3	G.T.S. □ B.M. at Unjalur Railway Station. Embedded S. of station house, 13¼ feet from S.E. and 5 feet from S.W. corners, 25 feet from nearest rail, 56 feet from telegraph post No. 317/2 and 4¼ feet from S. wall of station house on which letters B.M. have been cut.	442·274	442·575
59	BM 16/58 E	68·6	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 318/7.	446·256	446·559
60	BM 17/58 E	69·8	G.T.S. ○ B.M. Cut on S. end of E. parapet of bridge near telegraph post No. 319/14.	455·246	455·555
61	BM 18/58 E	71·3	G.T.S. ○ B.M. Cut on N. end of W. parapet of bridge near telegraph post No. 321/1.	455·467	455·775
62	BM 19/58 E	72·8	G.T.S. ○ B.M. Cut on N. end of W. parapet of bridge near telegraph post No. 322/11.	455·926	456·235
63	BM.20/58 E	73·9	G.T.S. ○ B.M. Cut on N. end of W. parapet of bridge near telegraph post No. 323/13.	479·754	480·079
a/63	BM 21/58 E	75·6	Rail at Pasur Railway Station opposite station house.	495·429	495·764
64	BM 22/58 E	75·6	G.T.S. ○ B.M. Cut on platform coping opposite station house at Pasur Railway Station.	496·283	496·618

Main-Line 6. (Trichinopoly to Erode).

Designation of Bench-marks		Distance from Trichinopoly	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
65	BM.23 / 58 E	75·7	G T S. □ B.M at Pasur Railway Station. Embedded 12 feet from S. and 5 feet from E. corners of tank-house, 9¾ feet from S corner of well, 58 feet from N. corner of goods-shed, 32½ feet from nearest rail, and 4 feet from S.E. wall of tank-house on which letters B.M. have been cut.	494·265	494·599
66	BM 24 / 58 E	76·2	G T S. ○ B M. Cut on E. end of N. parapet of bridge near telegraph post No. 325/19.	495·291	495·626
67	BM 25 / 58 E	77·4	G T.S. ○ B.M. Cut on E end of S. parapet of bridge near telegraph post No. 327/4.	507·926	508·269
68	BM.26 / 58 E	78·9	G.T S. ○ B.M. Cut on E end of N. parapet of bridge near telegraph post No. 328/13.	517·296	517·645
69	BM 27 / 58 E	80·1	G T.S. ○ B M. Cut on S. end of W. parapet of bridge near telegraph post No. 329/19.	515·306	515·654
70	BM 28 / 58 E	81·7	G T.S. ○ B M. Cut on S. end of E. parapet of bridge near telegraph post No. 330/10.	524·211	524·565
71	BM 29 / 58 E	82·6	G.T S. ○ B.M. Cut on S. end of E. parapet of bridge near telegraph post No. 332/9.	518·137	518·487
72	BM 30 / 58 E	84·5	G.T S. ○ B.M. Cut on N. parapet of culvert over W. drain at level crossing near telegraph post No. 334/6.	526·051	526·406
73	BM.31 / 58 E	85·8	G.T.S. ○ B.M. Cut on E. end of N. parapet of bridge near telegraph post No. 335/13.	535·252	535·612
73 a	BM 32 / 58 E	86·8	Rail at Erode Railway Station, S I. Railway, opposite booking office.	540·422	540·786
74	BM 33 / 58 E	86·8	G.T S. ○ B.M. Cut on platform coping opposite booking office at Erode Railway Station	541·459	541·823
75	BM 34 / 58 E	86·9	B.O.M. at Erode Railway Station. Cut on coping at N. end of passenger platform. (Railway bench-mark).	541·431	541·795
76	BM 35 / 58 E	86·9	G.T.S. ○ B M. Cut on platform coping opposite booking office at Erode Railway Station.	542·458	542·823
77	BM 36 / 58 E	87·0	G T S. □ B.M. at Erode Railway Station, Madras Railway. Embedded near southern wall of western half of Madras Railway engine-shed, 10 feet from S.W. corner of shed, 12 feet from end of wall towards rails, and 10 feet from centre of wall on which letters B.M. are cut.	539·021	539·384

Main-Line 7. (Jalarpet to Erode).

Designation of Bench-marks		Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 1 / 57 L	0·0	G.T.S. □ B.M. at Jalarpet Railway Station. Embedded opposite S wall of Semaphore Tower on Beypore line, and right in front of station, 13 and 17 feet respectively from S.E. and S.W. corners of tower and 33 feet E. of bench-mark cut on coping of S.W. line platform opposite booking office The letters B.M. are cut on S. wall of Tower, from which bench-mark is 13 feet distant.	1319·482	1320·308
2	BM 2 / 57 L	3·2	G.T.S. ○ B.M. Cut on stone of first pier from N. between two rails of bridge No. 241, near telegraph post No. $\frac{135}{2}$, and 9 chains S. of mile-stone No. 135 from Madras.	1269·340	1270·138
3	BM 3 / 57 L	5·0	G.T.S. □ B.M. at Tirupattur Railway Station. Embedded opposite N. wall of fuel-shed in front of station house The letters B.M. are cut on wall from which bench-mark is 23 feet distant, and 23 and 26 feet respectively from N.E. and N.W. corners of shed.	1270·543	1271·344
4	BM 4 / 57 L	5·0	G.T.S. ○ B.M. at Tirupattur Railway Station. Cut on coping of S. end of station platform.	1273·710	1274·513
5	BM 5 / 57 L	6·4	B.O.M. Cut on E parapet of bridge No. 257 near telegraph post No $\frac{138}{8}$ (Railway bench-mark).	1252·570	1253·361
6	BM 6 / 57 L	7·8	B.O.M. Cut on E. parapet of bridge No. 259 near telegraph post No. $\frac{139}{14}$ (Railway bench-mark).	1236·147	1236·928
7	BM 7 / 57 L	9·8	B.O.M. Cut on E. parapet of bridge No. 264 near telegraph post No. $\frac{141}{15}$ (Railway bench-mark).	1245·569	1246·356
8	BM 8 / 57 L	12·1	B.O.M. Cut on platform opposite signal staff at Kagankarai Railway Station.	1241·065	1241·851
9	BM 9 / 57 L	12·7	G.T.S. ○ B.M. Cut on capstone at E. end of S. abutment of large bridge No. 271.	1227·590	1228·367
10	BM 10 / 57 L	13·0	B.O.M. Cut on centre of E. parapet of bridge No. 272 (Railway bench-mark).	1222·174	1222·948
11	BM 11 / 57 L	14·2	G.T.S. ○ B.M. Cut on stone on S. abutment of girder opening No. 276 near telegraph post No. $\frac{146}{5}$.	1203·663	1204·426
12	BM 12 / 57 L	15·0	B.O.M. Cut on third cap from south on E. parapet of bridge No. 278 (Railway bench-mark).	1201·638	1202·400
13	BM 13 / 57 L	16·7	B.O.M. Cut on E. parapet of bridge No. 284 near telegraph post No. $\frac{148}{14}$ (Railway bench-mark).	1229·309	1230·089

Main-Line 7. (Jalarpet to Erode).

Designation of Bench-marks			Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
14		BM 14 / 57 L	19·3	G.T.S. □ B.M. at Samalpatti Railway Station. Embedded between tank-house and well, 10 feet from E. corner of former and 7 feet from S. corner of latter where letters B.M. are cut.	1261·596	1262·398
15		BM.15 / 57 L	19·4	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Samalpatti Railway Station.	1264·528	1265·332
16		BM.16 / 57 L	20·5	G.T.S. ○ B.M. Cut on middle pier, between two rails of bridge No. 295, near telegraph post No. $\frac{152}{10}$, and 35 chains N. of mile-stone No. 153 from Madras.	1290·476	1291·297
17		BM.17 / 57 L	21·3	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge No. 297, near telegraph post No. $\frac{153}{7}$.	1313·515	1314·351
18		BM.18 / 57 L	21·6	B.○M. Cut on centre of E. parapet of bridge No. 298 near telegraph post No. $\frac{153}{11}$ (Railway bench-mark).	1320·339	1321·179
19		BM.19 / 57 L	24·5	G.T.S. ○ B.M. Cut on platform coping half a chain S. of signal staff at Kallavi Railway Station.	1319·835	1320·677
20		BM.20 / 57 L	26·0	B.○M. Cut on E. parapet of bridge No. 311 near telegraph post No. $\frac{158}{3}$ (Railway bench-mark).	1275·093	1275·907
21		BM.21 / 57 L	27·8	B.○M. Cut on E. parapet of bridge No. 316 near telegraph post No. $\frac{159}{15}$ (Railway bench-mark).	1240·019	1240·812
22		BM.22 / 57 L	29·2	B.○M. Cut on E. parapet of bridge No. 320 over Ponniar river.	1210·684	1211·460
23		BM 23 / 57 L	29·6	B.○M. Cut on E. parapet of bridge No. 322 near telegraph post No. $\frac{161}{16}$.	1216·302	1217·081
24		BM 24 / 57 L	30·8	B.○M. Cut on E. parapet of bridge No. 328 near telegraph post No. $\frac{162}{17}$ (Railway bench-mark).	1237·639	1238·433
25		BM 25 / 57 L	32·1	B.○M. Cut on E. parapet of drain No. 333 near telegraph post No. $\frac{164}{3}$ (Railway bench-mark).	1260·155	1260·964
26		BM.26 / 57 L	33·4	G.T.S. ○ B.M. Cut on E. parapet of N. abutment of bridge No. 338 near telegraph post No. $\frac{165}{10}$.	1293·113	1293·943
27		BM 27 / 57 L	34·0	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Morappur Railway Station.	1305·673	1306·513

Main-Line 7. (Jalarpet to Erode).

Designation of Bench-marks		Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
28	BM 28 / 57 L	34·0	G.T.S. □ B.M. at Morappur Railway Station. Embedded opposite latrine at S. end of station platform, 7 feet from centre of E. wall of latrine, 12½ feet from S.E. corner of same, and 12 feet from bench-mark cut on platform coping.	1306·346	1307·186
a / 28	BM 29 / 57 L	34·1	G.T.S. ○ B.M. Cut on platform coping opposite latrine at Morappur Railway Station.	1306·354	1307·194
b / 28	BM.30 / 57 L	34·1	□ ⅄ Cut on platform coping opposite latrine at Morappur Railway Station (Railway bench-mark).	1305·239	1306·078
29	BM 31 / 57 L	35·0	G.T.S. ○ B.M. Cut on N. abutment of bridge No. 343 near telegraph post No. 167/2.	1328·625	1329·480
30	BM 32 / 57 L	35·5	B.O.M. Cut on centre of E. parapet of bridge No. 345 near telegraph post No. 167/11 (Railway bench-mark).	1344·778	1345·643
31	BM 33 / 57 L	37·0	B.O.M. Cut on centre of S. parapet of bridge No 347, near telegraph post No. 169/3 (Railway bench-mark).	1392·926	1393·823
32	BM 34 / 57 L	38·5	B.O.M. Cut on offset under southern rail towards S. end of E. abutment of bridge No. 351, near telegraph post No. 170/9.	1393·512	1394·410
33	BM.35 / 57 L	40·4	B.O.M. Cut on centre of S. parapet of bridge No. 356 near telegraph post No. 172/10 (Railway bench-mark).	1420·391	1421·307
34	BM.36 / 57 L	41·3	G.T.S. ○ B.M. Cut on parapet at S. end of W. abutment of bridge No. 358 near telegraph post No. 173/8.	1427·467	1428·388
35	BM 37 / 57 L	41·7	G.T.S. ○ B.M. Cut on platform coping about 1 chain W. of signal staff at Buddireddippatti Railway Station.	1431·208	1432·133
36	BM.38 / 57 L	43·3	G.T.S. ○ B.M. Cut on stone between two rails, about centre of pier of double girder opening No. 363 near telegraph post No. 175/9.	1456·436	1457·377
37		44·5	Destroyed.	1481·499	1482·458
38	BM 39 / 57 L	46·0	B.O.M. Cut on centre of E. parapet of bridge No. 373 near telegraph post No. 178/3 (Railway bench-mark).	1456·218	1457·160
39		47·6	Destroyed.	1395·939	1396·844
40	BM.5 / 58 I	48·0	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Mallapuram Railway Station.	1387·496	1388·395

Main-Line 7. (Jalarpet to Erode).

Designation of Bench-marks		Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
41	BM.6 / 58 I	48·1	G.T.S. □ B.M. at Mallapuram Railway Station. Embedded opposite E. wall of tank-house, which is about 120 yards S.W. of station, 18 and 20 feet respectively from N. and E. corners of tank-house, and 16 feet directly opposite letters B.M. cut on its E. wall.	1379·917	1380·812
42	BM 7 / 58 I	48·4	B.O.M. Cut on about centre of S. parapet of bridge No. 1, near telegraph post No. 180/9 (Railway bench-mark).	1373·498	1374·388
43	BM.8 / 58 I	50·1	G.T.S. ○ B.M. Cut on stone in centre of pier of girder opening No. 7, near telegraph post No. 182/5.	1335·956	1336·823
44	BM.9 / 58 I	51·0	G.T.S. ○ B.M. Cut on stone in centre of first pier from E. side of girder opening No. 14, near telegraph post No. 183/3.	1358·328	1359·210
45	BM.10 / 58 I	51·7	B.O.M. Cut on centre of E. parapet of bridge No. 16, near telegraph post No. 183/18 (Railway bench-mark).	1389·757	1390·660
46	BM.11 / 58 I	53·9	B.O.M. Cut on 2nd cap from S. of E. parapet of bridge No. 23, near telegraph post No. 186/3.	1474·421	1475·380
47	BM.12 / 58 I	56·1	G.T.S. ○ B.M. Cut on S. abutment of skew-bridge No. 32, near telegraph post No. 188/6.	1441·688	1442·627
48	BM.13 / 58 I	57·5	B.O.M. Cut on centre of E. parapet of bridge No. 43, near telegraph post No. 189/14 (Railway bench-mark).	1359·852	1360·739
49	BM 14 / 58 I	58·6	G.T.S. ○ B.M. Cut on 1st pier from south of bridge No 48, near telegraph post No. 190/15.	1297·383	1298·229
50	BM 15 / 58 I	60·0	G.T.S. ○ B.M. Cut on top of coping at N.E. end of passenger platform at Shevaroy (Servarayarmalai) Hills Railway Station.	1245·557	1246·371
51	BM.16 / 58 I	60·1	G.T.S. □ B.M. at Shevaroy Hills Railway Station. Embedded a few inches below level of platform in front of latrine, adjoining S. end of station house, 10 and 20 feet respectively from N.W. and S.W. corners of latrine, 6 feet from letters B.M. cut on wall and 13 feet from edge of platform.	1245·432	1246·245
52		61·3	Destroyed.	1210·639	1211·430
53	BM 17 / 58 I	62·2	B.O.M. Cut on cap at S.W. end of E. parapet of bridge No. 7 near telegraph post No. 194/9 (Railway bench-mark).	1167·443	1168·206
54	BM.18 / 58 I	63·1	B.O.M. Cut on cap at S.W. end of S. parapet of bridge No. 11 near telegraph post No. 195/6 (Railway bench-mark).	1138·187	1138·932

Main-Line 7. (Jalarpet to Erode).

Designation of Bench-marks		Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
55	BM 19 / 58 I	64·9	B.O.M. Cut on cap at S. end of E. parapet of bridge No. 14 near telegraph post No. $\frac{197}{2}$ (Railway bench-mark).	1068·087	1068·787
56	BM 20 / 58 I	66·8	Mile-post No. 199 from Madras.	995·564	996·217
57	BM 21 / 58 I	67·2	B.O.M. Cut on E. parapet of bridge No. 19 near telegraph post No. $\frac{199}{6}$ (Railway bench-mark).	987·134	987·782
58	BM 22 / 58 I	69·2	B.O.M. Cut on cap at S. end of E. parapet of bridge No. 24 near telegraph post No. $\frac{201}{8}$ (Railway bench-mark).	1020·471	1021·142
59	BM 23 / 58 I	70·9	B.O.M. Cut on centre of E. parapet of bridge No. 27 near telegraph post No $\frac{203}{2}$ (Railway bench-mark).	1024·009	1024·684
60	BM 24 / 58 I	72·3	B O.M. Cut on cap at S. end of E. parapet of bridge No. 29 near telegraph post No. $\frac{204}{10}$ (Railway bench-mark).	1006·113	1006·776
61	BM 25 / 58 I	74·8	G T S. □ B M. at Salem (Suramangalam) Railway Station. Embedded near N wall of tank-house situated near fire engine-shed and opposite signal-staff at S end of station, 13 and 11 feet respectively from N W. and N E corners of tank-house and 11 feet from letters B M. cut on centre of N. wall.	918·428	919·035
a/61	BM 26 / 58 I	74·8	G T.S. ○ B M. Cut on platform coping opposite luggage room and near signal-staff at S. end of Salem Railway Station.	922·060	922·669
1a/61	BM.27 / 58 I	78·2	□ ↑ at Rock. Cut on rock *in situ* on E margin of road, 23 feet 2 inches from N. corner of European cemetery. (P W D bench-mark).	920·935	921·544
1b/61	BM 28 / 58 I	78·3	G T S. ○ B M. at Christ Church, Salem. Cut on 4th step from bottom on S. side at main entrance to building.	916·374	916·980
2a/61	BM.29 / 58 I	78·3	G T S Standard Bench Mark at Salem. Situated in compound of Collector's kachahri, 103 feet from N.W end of front portico and 63½ feet from sundial which bears 120° from mark. It is enclosed in a railed off space 9 feet square.	917·681	918·288
b/61	BM 30 / 58 I	74·8	On the ⊙. G.T. Survey Station Suramangalam, lat. 11° 40′ 6″·00, long 78° 6′ 53″·13. A secondary point of Great Arc Series—Section 8° to 18°, indicated by a circle and dot cut on S W. corner of roof of upper storey of Salem Railway Station	954·851	955·482
62		76·2	Destroyed.	874·790	875·368

Main-Line 7. (Jalarpet to Erode).

Designation of Bench-marks		Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
63	BM.31 / 58 I	77·8	B.O.M. Cut on centre of E. parapet of bridge No. 46 at mile-post No. 210.	859·244	859·813
64	BM.32 / 58 I	79·5	B.O.M. Cut on S. parapet (near centre) of bridge No. 54, near telegraph post No. 211/15 (Railway bench-mark).	855·026	855·593
65	BM.33 / 58 I	80·7	B.O.M. Cut on E. abutment of bridge No. 59 near telegraph post No. 212/17.	870·091	870·668
66	BM 34 / 58 I	81·9	B.O.M. Cut on centre of S. parapet of bridge No. 66 near telegraph post No. 214/2. *Note.*—A bench-mark thus ↗ B.M. on end of same parapet was found to be of same height as this bench-mark.	886·922	887·511
67	BM.35 / 58 I	83·1	B.O.M. Cut on S. parapet (near E. end) of bridge No. 70 near telegraph post No. 215/7 (Railway bench-mark).	894·720	895·314
68		84·2	Destroyed	874·165	874·745
69	BM 36 / 58 I	85·7	G.T.S. ○ B.M. Cut on stone cap at S. end of first pier from E. of bridge No. 76 near mile-stone No. 218.	821·954	822·501
70	BM.37 / 58 E	87·6	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Mc. Donald's Chaultry Railway Station.	785·258	785·780
71	BM.38 / 58 E	87·6	G.T.S. □ B.M. at Mc. Donald's Chaultry Railway Station. Embedded near tank-house at W. end of station platform, and adjoining signal staff, 13 and 12 feet respectively from N.W. and S.W. corners of tank-house, and 11 feet directly in front of centre of western wall of same, where letters B.M. have been cut.	781·645	782·165
a/71	BM 39 / 58 E	89·1	↗ Cut on centre of S. parapet of bridge No. 83 between telegraph posts Nos. 221/6 and 221/7 (Railway bench-mark).	811·636	812·176
72	BM.40 / 58 E	89·1	G.T.S. ○ B.M. Cut on cap at W. end of S. parapet of bridge No. 83 between telegraph posts Nos. 221/6 and 221/7.	813·019	813·560
73	BM.41 / 58 E	89·8	B.O.M. Cut on S. abutment of bridge No. 84 near telegraph post No. 222/1.	835·641	836·198
74	BM.42 / 58 E	90·4	B.O.M. Cut on E. parapet of S. abutment of single 9 feet girder opening No. 86 near telegraph post No. 222/12 (Railway bench-mark).	863·051	863·626

Main-Line 7. (Jalarpet to Erode).

Designation of Bench-marks		Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
75	BM.43 / 58 E	92·8	⋀ Cut on N. abutment of girder opening No. 94 near telegraph post No. $\frac{225}{2}$ (Railway bench-mark).	964·278	964·921
76	BM 44 / 58 E	94·5	G.T.S. ○ B.M. Cut on N. end of pier of double 9 feet girder opening No. 97 near telegraph post No. $\frac{226}{16}$.	965·871	966·515
a / 76	BM.45 / 58 E	96·2	↗ B.M. Cut on a white rock on N. side of cutting opposite telegraph post No. $\frac{228}{8}$ (Railway bench-mark).	956·447	957·085
77	BM.46 / 58 E	96·6	↗ B.M. Cut on N. end of pier of bridge No. 101 near telegraph post No. $\frac{228}{18}$ (Railway bench-mark).	923·451	924·068
78	BM 47 / 58 E	98·3	B ○ M. Cut on N E. corner of coping of passenger platform at Sankaridrug Railway Station.	878·281	878·868
79	BM 48 / 58 E	98·3	G T S. ○ B.M. Cut on platform coping opposite booking office at Sankaridrug Railway Station.	878·261	878·848
80	BM 49 / 58 E	98·4	G T S. □ B M at Sankaridrug Railway Station. Embedded opposite S wall of tank-house near S end of station platform, 11 feet from S W and S E. corners of tank-house, and 9 feet from letters B.M. cut on centre of wall.	874·222	874·807
1 / 80	BM 50 / 58 E	102·9	On top of rectangular protecting pillar of Morur, G.T. Survey Station, lat 11° 24′ 11″ 54, long. 77° 53′ 26″ 92. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1643·345	1644·445
81	BM 51 / 58 E	100·5	↗ B.M. Cut on W. cap of S. abutment of girder opening No. 111 near telegraph post No. $\frac{232}{14}$ (Railway bench-mark).	799·534	800·069
82	BM.52 / 58 E	102·5	⋀ B M. Cut on W. cap of pier of girder opening No. 115 near telegraph post No. $\frac{234}{14}$ (Railway bench-mark).	735·870	736·363
83	BM 53 / 58 E	104·6	B ○ M. Cut on centre of W. parapet of bridge No. 122 near telegraph post No. $\frac{236}{17}$ (Railway bench-mark).	667·212	667·660
84	BM 54 / 58 E	106·9	⋀ B M. Cut on centre of W. parapet of bridge No. 129 near telegraph post No. $\frac{239}{5}$ (Railway bench-mark).	585·490	585·883
85	BM.55 / 58 E	108·8	G.T.S. ○ B.M. Cut on platform coping opposite signal-staff at Cauvery (Kaveri) Railway Station.	511·466	511·809

Main-Line 7. (Jalarpet to Erode).

Designation of Bench-marks			Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/85	BM 56/58 E	109·4	B.OM. at Cauvery bridge. Cut on W. end of N. parapet of W. abutment (Railway bench-mark).	505·078	505·417
86		BM.57/58 E	110·4	B.OM. Cut on centre of S. abutment of bridge No. 142 over Kalingarayan Canal near telegraph post No. 242/13.	526·966	527·321
87		BM.34/58 E	110·7	B.OM. at Erode Railway Station. Cut on coping at N. end of passenger platform (Railway bench-mark).	541·431	541·795
88		BM.35/58 E	110·8	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Erode Railway Station.	542·458	542·823
89		BM.36/58 E	110·9	G.T.S. □ B.M. at Erode Railway Station. Embedded near southern wall of western half of Madras Railway engine-shed, 10 feet from S.W. corner of shed, 12 feet from end of wall towards rails, and 10 feet from centre of wall where letters B.M. are cut.	539·021	539·384

Main-Line 8. (Arkonam to Madras).

Designation of Bench-marks		Distance from Arkonam	Description of Bench-marks	Corrected Elevation *	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 1 / 57 O	0·0	G T S. □ B.M. at Arkonam Railway Station. Embedded in a solid block of masonry 3 feet below level of platform between railway mail service office and plague examination shed. The following are distances and bearings, respectively of surrounding objects from bench-mark:—N E corner of station house 142 feet, 267°; N W. corner of railway mail service office 21 feet, 53°; S.W corner of same 25 feet, 128°. A large stone slab has been laid over B.M. about level of platform.	293·105	293·283
a/1	BM 2 / 57 O	3·3	G T S. ○ B M. Cut on N.E. cap of bridge No. 191 between telegraph posts Nos. 39/8 and 39/7.	238·684	238·829
b/1	BM 3 / 57 O	4·3	G T S. ○ B M. Cut on N. parapet of bridge No. 185 between telegraph posts Nos 38/9 and 38/8.	218·717	218·850
2	BM 4 / 57 O	5·1	G T.S. ○ B.M. Cut on N. parapet of bridge No. 181 between telegraph posts Nos. 37/12 and 37/11.	205·416	205·540
1/2	BM 5 / 57 O	8·2	On top of rectangular protecting pillar of Kurumkota G. T. Survey Station, lat 13° 2′ 34″·14, long. 79° 44′ 50″·50. A principal station of Madras Longitudinal Series. (For full description *see* Synoptical Volume).	336·741	336·945
3	BM.6 / 57 O	6·5	G.T S. ○ B M. Cut on E. end of N. platform coping (up line) at Tiruvelangadu Railway Station.	198·851	198·971
4	BM 7 / 57 O	7·9	G T S ○ B.M Cut on W. end of N. parapet of bridge No. 168 between telegraph posts Nos. 34/15 and 34/14.	189·779	189·894
5	BM 8 / 57 O	9·2	G T S. ○ B M Cut on N. end of E abutment of bridge No. 160 near telegraph post No. 33/9, and 6 chains E. of Manur Railway Station.	189·019	189·133
6	BM 9 / 57 O	10·5	G T S. ○ B M. Cut on S. E. cap of bridge No. 152 near telegraph post No. 32/3.	184·366	184·477
a/6	BM 10 / 57 O	11·7	G T S. ○ B.M Cut on S. E. cap of girder bridge No. 148 between telegraph posts Nos. 30/18 and 30/17.	171·046	171·149
7	BM 11 / 57 O	12·4	B.○M. Cut on W end of N. parapet of bridge No. 146 near telegraph post No. 30/6.	167·550	167·652
8	BM 12 / 57 O	15·0	G T S. ○ B.M. Cut on centre of N. parapet of bridge No. 134 near telegraph post No. 27/12.	163·854	163·953

* Deduced from the most recent levelling revision.

Main-Line 8. (Arkonam to Madras).

Designation of Bench-marks			Distance from Arkonam	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
9		BM.13 / 57 O	16·0	G.T.S. ○ B.M. Cut on S.E. cap of bridge No. 131 near telegraph post No. 26/12.	159·130	159·226
10		BM 14 / 57 O	16·7	G.T.S. □ B.M. at Tiruvallur Railway Station. Embedded in a solid block of masonry 1 foot below ground, 4½ feet from E. wall of goods-shed W of station, and 30 feet in a right line from centre of up-line rails. The following are distances and bearings, respectively, of surrounding objects from bench-mark :—N.W. corner of tank-house 86 feet, 111°; S.E. corner of goods-shed 23 feet, 174°; N.E. corner of same 13 feet, 321°; water column near tank-house 125 feet, 96°. The letters B.M. have been cut on E. wall of goods-shed facing bench-mark.	151·842	151·934
11		BM.15 / 57 O	18·6	G.T.S. ○ B.M. Cut on S.W. cap of bridge No. 120 between telegraph posts Nos. 24/4 and 24/3.	144·198	144·285
	a/11	BM 16 / 57 O	19·6	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge No. 118 near telegraph post No. 23/3.	138·570	138·654
12		BM.17 / 57 O	20·1	G.T.S. ○ B.M. Cut on N. end of E. abutment of bridge No. 115 near telegraph post No. 22/12.	132·651	132·731
13		BM.18 / 57 O	22·0	G.T.S. ○ B.M. Cut on S. parapet of drain No. 105 near telegraph post No. 20/14.	120·252	120·324
14		BM.1 / 66 C	23·7	G.T.S. ○ B.M. Cut on a stone slab let into E. end of S. parapet of culvert No. 98 near mile-stone No. 19.	122·793	122·867
15		BM.2 / 65 C	24·2	G.T.S. ○ B.M. Cut on N.W. cap of bridge No. 97 near telegraph post No. 18/10.	119·582	119·654
16		BM 3 / 66 C	26·0	G.T.S. ○ B.M. Cut on N. end of E. abutment of girder bridge No. 83 near telegraph post No. 16/15.	106·455	106·519
17		BM 4 / 66 C	26·5	G.T.S. ○ B.M. Cut on N. end of W. abutment of bridge No. 81 near telegraph post No. 16/5.	101·353	101·414
18		BM.5 / 66 C	28·1	G.T.S. ○ B.M. Cut on S. parapet of drain No. 76 near telegraph post No. 14/13.	87·879	87·932

Main-Line 8. (Arkonam to Madras).

Designation of Bench-marks		Distance from Arkonam	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
19	BM.6 / 66 C	29·7	G T S. □ B M. at Avadi Railway Station. Embedded in a solid block of masonry, 1½ feet below ground, 3½ feet N. of large "*paka*" well W. of station and 7 feet in a right line from wall forming western boundary of station compound. The following are distances and bearings, respectively, of surrounding objects from bench-mark :—N.W corner of pointsman's house 61 feet 6 inches, 105° 10′; N E. corner of tank-house 49 feet 10 inches, 131° 30′; N.W. corner of scavenger's house 82 feet 7 inches, 239° 30′ and centre of small well S. of large one 37 feet, 188°.	79·813	79·861
20	BM 7 / 66 C	30·6	G T S. ○ B M. Cut between rails on centre of E. abutment of bridge No. 70 near telegraph post No. 12/5.	73·157	73·201
21	BM 8 / 66 C	34·0	G T S. ○ B M. Cut on N E. cap of bridge No. 58 near telegraph post No. 8/17.	48·130	48·159
22	BM 9 / 66 C	34·5	G T S ○ B M. Cut on N. parapet of drain No. 55 near telegraph post No. 8/7.	40·490	40·514
23	BM.10 / 66 C	35·3	G T S ○ B M. Cut on S. parapet of drain No. 52 near telegraph post No 7/12.	35·521	35·543
24	BM 11 / 66 C	37·3	G T S ○ B M Cut on E. cap of bridge No. 36 near telegraph post No. 5/12.	32·854	32·874
1/24	BM 12 / 66 C	40·9	G T S. □ B M. Embedded at N. end of flooring of verandah of Sembian Police Station, ¾ mile N of Perambur Railway Station near Lachmamma Chhattram on road to Nellore.	19·602	19·614
1a/24	BM 13 / 66 C	42·8	G T S □ B M at Perambur Embedded within walls of Carnatic Mill Co., 125 feet away from and directly in front of main gate to factory, 31 feet from N E corner of office, 51 feet and 49 feet from N W. and S.W. corners, respectively, of Power House.	10·634	10·640
25	BM 14 / 66 C	40·5	G T S. ○ B M post Cut on S. parapet of bridge No. 18 near telegraph No. 2/7.	16·543	16·553
1/25	BM 15 / 66 C	43·9	G.T.S. □ B.M D. Cut on north arm of harbour near the old sea entrance, a few paces north of Tidal Observatory, Madras.	13·651	13·659
26	BM 16 / 66 C	43·0	G T S ○ B M. Cut on buttress of wall N. of N. gate-way leading into goods-shed, Rayapuram Railway Station.	14·272	14·280
1/26	BM 17 / 66 C	43·9	M D. Zone No 29 at Municipal Boundary Pillar Cut on a stone pillar embedded in S E angle formed by junction of Beach Road and China Bazar Street, Madras.	15·254	15·263

Main-Line 8. (Arkonam to Madras).

Designation of Bench-marks			Distance from Arkonam	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	1a/26	BM.18/66 C	44·1	G.T.S. ○ B.M. Cut on N.E. corner of plinth of old light-house near High Court at Madras. This is the old standard bench-mark for Madras *vide* page 50, Vol. XIX.	14·984	14·993
	1b/26	BM.19/66 C	44·4	Colonel De. Havilland's Bench-mark, fixed in 1821. A horizontal line cut on a marble slab let into escarp close under N. gate of Fort St. George, Madras.	7·862	7·867
	1c/26	BM.20/66 C	45·2	B.○M. Marked in tar on basement of ornamental lamp pillar in front of Memorial Hall (1857), Madras.	13·759	13·767
	1d/26	BM.21/66 C	45·2	G.T.S. ○ B.M. Cut on N. end of fourth step from bottom at E. entrance to Memorial Hall, Madras.	14·859	14·868
	2/26	BM 22/66 C	45·5	□ ↑ at Sir Thomas Munro's Statue. Marked in red on basement of grass plot surrounding monument.	11·212	11·219
	2a/26	BM.23/66 C	45·4	G.T.S. ○ B.M. Cut on 2nd step from bottom at S. or main entrance to Madras Central Railway Station.	14·469	14·478
	3/26	BM.24/66 C	46·1	G.T.S. ○ B.M. Cut on bottom step of N. flight leading to Banqueting Hall, Government House.	9·752	9·758
	3a/26	BM.25/66 C	47·0	G.T.S. ○ B.M. Cut on basement on western side of General Neill's statue, Mount Road, Madras.	14·723	14·732
	4/26	BM 26/66 C	48·3	G.T.S. Standard Bench Mark 1906 at Madras Situated in compound of Astronomical Observatory, 49 feet north of office building from N.E. and N.W. corners of which it is 157 feet and 75 feet respectively. The dome observatory bears 233° from bench-mark which is enclosed in a railed-off space 11 feet square.	21·772	21·785
	5/26	BM 27/66 C	48·4	G.T.S. ○ B.M. Cut on bottom step at N. entrance to Astronomical Observatory, Madras.	20·775	20·788
	5a/26	BM 28/66 C	48·4	On upper surface of circular slab of granite of Madras Dome Observatory, G. T. Survey Station, lat. 13° 4′ 2″·06, long. 80° 14′ 51″·76. A principal station of Madras Longitudinal Series (For full description *see* Synoptical Volume).	53·454	53·486
27		BM 29/66 C	43·8	G.T.S. ○ B.M. Cut on W. end of top step at S. end of main entrance under portico near "Packet Box" at General Post Office, Madras.	15·061	15·070
28		BM 30/66 C	44·1	G.T.S. ○ B.M. Cut on 3rd step from bottom on E. side of Lord Cornwallis' fountain.	14·623	14·632
29		BM.31/66 C	44·1	G.T.S. ○ B.M. Cut on plinth W. side of memorial stone laid by the Prince of Wales at Port Health Office, Madras.	15·704	15·714

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.31 / 66 C	0·0	G.T.S. ○ B.M. Cut on plinth W. side of memorial stone laid by the Prince of Wales at Port Health Office, Madras.	15·704	15·714
2	BM 30 / 66 C	0·0	G.T.S. ○ B.M. Cut on 3rd step from bottom on E. side of Lord Cornwallis' fountain.	14·623	14·632
3	BM 18 / 66 C	0·7	G.T.S. ○ B.M. Cut on N.E. corner of plinth of light-house and is the old standard bench-mark for Madras.	14·984	14·993
4	BM 32 / 66 C	2·3	G.T.S. ○ B.M. Cut on bottom step of E side of Colonel John Cumming Anderson's Memorial at Mount Road, nearly opposite Government House, Madras.	9·710	9·716
5	BM 33 / 66 C	2·6	G.T.S. ○ B.M. Cut on top step opposite second pillar from N. on west of Sultan Bahadur of Vizianagram's Fountain, Mount Road, Madras.	12·564	12·572
6	BM.25 / 66 C	3·3	G.T.S. ○ B.M. Cut on basement on western side of General Neill's Statue, Mount Road, Madras.	14·723	14·732
7	BM 34 / 66 C	4·5	Mile-stone 3 miles from Fort St. George and 5 miles from Madras.	23·935	23·950
8	BM 35 / 66 C	6·8	G.T.S. ○ B.M. Cut on plinth of basement, facing the road, of monument opposite Government Veterinary Hospital, Mount Road, Madras.	22·305	22·319
9	BM 36 / 66 C	7·7	G.T.S. ○ B.M. Cut on kerbstone of eastern pillar at S extremity of bridge across Saidapet River, Mount Road, Madras.	24·539	24·554
10	BM.37 / 66 C	8·5	G.T.S. ○ B.M. Cut on E. parapet 4 feet from S. end of small bridge opposite telegraph post No. $\frac{7}{4}$.	32·518	32·536
11	BM 38 / 66 C	10·0	G.T.S. ○ B.M. Cut on platform opposite main entrance at St. Thomas's Mount Railway Station.	36·386	36·408
1/11	BM 39 / 66 C	11·5	On surface of stone slab (upper mark) of St Thomas's Mount, G.T. Survey Trestle Station, lat. 13° 0′ 14″·79, long 80° 11′ 41″ 38 A principal station of Madras Longitudinal Series. (For full description *see* Synoptical Volume).	249·925	250·077
12	BM 1 / 66 D	10·1	G.T.S. □ B.M. at St Thomas's Mount Railway Station. Embedded opposite S.W. corner of tank-house, which is 6 chains W of railway station, 7 feet W of letters B M cut on S W. corner, 19 feet and 7 feet respectively from N.W add S.W. corners of tank-house, and 14 feet from well.	34·103	34·124
13	BM 2 / 66 D	10·7	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. $\frac{9}{8}$.	35·785	35·807
14	BM 3 / 66 D	11·9	G.T.S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. $\frac{10}{12}$.	52·647	52·679

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
15	BM.4 / 66 D	12·6	G.T.S. ○ B.M. Cut on N. end of W. abutment of bridge near telegraph post No. 11/5.	67·589	67·630
16	BM.5 / 66 D	13·7	G.T.S. ○ B.M. Cut on platform coping opposite telegraph office at Pallavaram Railway Station.	73·705	73·750
17	BM 6 / 66 D	15·0	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 13/13.	77·295	77·342
18	BM.7 / 66 D	15·8	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 14/9.	82·924	82·975
19	BM.8 / 66 D	17·3	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 15/18.	97·821	97·881
20	BM 9 / 66 D	18·6	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 17/6.	73·282	73·327
21	BM 10 / 66 D	19·6	G.T.S. B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 18/5.	87·765	87·819
22	BM.11 / 66 D	20·7	G.T.S. □ B.M. at Vandalur Railway Station. Embedded opposite S. wall of gangman's house, which is 150 yards N. of station house, 7 and 11 feet respectively from S.E. and S.W. corners of house. The letters B.M. have been cut on wall of house facing bench-mark.	111·064	111·132
23	BM 12 / 66 D	20·8	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Vandalur Railway Station.	113·342	113·412
24	BM 13 / 66 D	22·3	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 20/18.	96·802	96·861
25	BM 14 / 66 D	24·1	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 22/14.	101·827	101·890
26	BM.15 / 66 D	24·5	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Guduvancheri Railway Station.	111·231	111·299
27	BM.16 / 66 D	26·4	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 25/1.	138·364	138·449
28	BM.17 / 66 D	28·1	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 26/15.	161·443	161·543

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
29	BM 18 / 66 D	28·8	G T S. ○ B M. Cut on W. end of S. abutment of bridge near telegraph post No. 27/8.	177·836	177·946
30	BM.19 / 66 D	30·1	G.T S. ○ B M. Cut on W. end of N. abutment of bridge near telegraph post No. 28/14.	155·791	155·887
31	BM 20 / 66 D	31·4	G T S. ○ B.M. Cut on the platform coping opposite booking office at Singaperumalkoyil Railway Station.	141·739	141·827
32	BM.21 / 66 D	31·4	G.T S. □ B M. at Singaperumalkoyil Railway Station. Embedded opposite western wall of latrine situated 35 yards S. of station house, 13 and 24 feet respectively from N. and S. ends, and 7 feet from letters B.M. cut on wall facing it.	139·747	139·834
33	BM.1 / 57 P	32·1	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 30/14.	140·415	140·502
34	BM 2 / 57 P	33·6	G T S. ○ B M Cut on W. end of N. abutment of bridge near telegraph post No. 32/4.	145·082	145·172
35	BM 3 / 57 P	34·8	G T S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 33/8.	130·171	130·252
36	BM.4 / 57 P	36·5	G T.S. □ B M at Chingleput (Chengalpat) Railway Station. Embedded opposite N. wall of goods-shed facing station house, 8 feet and 27 feet respectively from N W. and N E. corners of shed and 19 feet E of nearest rail. The letters B.M. have been cut on wall opposite bench-mark.	128·145	128·225
a/36	BM.5 / 57 P	36·6	G.T.S. ○ B M. Cut on plinth of W. arch of N. wall of goods-shed at Chingleput Railway Station.	131·309	131·391
37	BM.6 / 57 P	36·6	G T S. ○ B.M. Cut on platform coping opposite booking office at Chingleput Railway Station.	128·204	128·284
38	BM.7 / 57 P	38·0	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 36/13.	147·352	147·444
39	BM 8 / 57 P	39·2	G T S. ○ B.M. Cut on E end of N. abutment of bridge near telegraph post No. 37/16.	158·907	159·006
1/39	BM 9 / 57 P	40·4	On top of rectangular protecting pillar of Tirumani G T. Survey Hill Station, lat. 12° 39′ 4″·47, long. 79° 58′ 51″·07. This is a principal station of the Madras Longitudinal Series. (For full description *see* Synoptical Volume).	771·070	771·550

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
40	BM 10 / 57 P	39·4	G.T.S. ○ B.M. Cut on S. end of W. parapet of bridge near telegraph post No. 38/1.	146·760	146·851
41	BM.11 / 57 P	40·5	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 39/2.	134·205	134·289
42	BM.12 / 57 P	41·5	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 40/2.	109·180	109·248
43	BM.13 / 57 P	42·6	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 41/4.	92·210	92·268
44	BM.14 / 57 P	44·0	G.T.S. ○ B.M. Cut on stone of N. abutment, at end of E. girder on N. end of bridge across Palar river near telegraph post No. 42/12.	87·312	87·367
45	BM 15 / 57 P	44·7	G.T.S. ⊔ B.M. at Padalam Railway Station. Embedded opposite W. corner of gangman's house which is near level crossing, and a few yards N. of railway station; 5 feet and 13 feet respectively from W. and N. corners of gangman's house, and 7 feet from nearest rail. The letters B.M. have been cut on corner of wall facing bench-mark.	85·847	85·901
46	BM.16 / 57 P	45·5	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 44/2.	76·620	76·668
47	BM 17 / 57 P	46·8	G.T.S. ○ B.M. Cut on E. end of N. abutment of girder bridge near telegraph post No. 45/7.	72·853	72·899
48	BM.18 / 57 P	47·9	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 46/9.	80·717	80·768
49	BM 19 / 57 P	49·1	G.T.S. ○ B.M. Cut on E. end of middle pier of bridge near telegraph post No. 47/13.	85·244	85·298
50	BM.20 / 57 P	50·1	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 48/14.	83·401	83·453
51	BM 21 / 57 P	50·5	G.T.S. ○ B.M. Cut on stone coping of E. end of N. abutment of girder bridge.	81·437	81·488
a/51	BM.22 / 57 P	51·9	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Madurantakam Railway Station.	91·272	91·329

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
52	BM 23 / 57 P	51·9	G.T.S. □ B.M. at Madurantakam Railway Station. Embedded opposite W. wall of goods-shed, 7 and 27 feet respectively from N.W. and S.W. corners of shed, and 6 feet from letters B.M. cut on wall opposite bench-mark.	90·972	91·029
53	BM 24 / 57 P	53·0	G.T.S. ○ B.M. Cut on E end of S. parapet of bridge near telegraph post No. 51/11.	101·924	101·988
54	BM.25 / 57 P	54·2	G T S. ○ B M. Cut on W. end of N. abutment of bridge near telegraph post No. 52/15.	123·456	123·534
55	BM 26 / 57 P	54·8	G.T.S. ○ B.M. Cut on W end of N. abutment of bridge near telegraph post No. 53/8.	138·054	138·141
56	BM 27 / 57 P	56·1	G T S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 54/13.	135·930	136·016
57	BM 28 / 57 P	56·9	G.T S. ○ B M. Cut on S. end of W. parapet of bridge near telegraph post No. 55/9.	147·685	147·778
58	BM 29 / 57 P	57·7	G T S ○ B M. Cut on W end of S. abutment of bridge near telegraph post No. 56/5.	161·350	161·452
59	BM.30 / 57 P	59·6	G T S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 58/4.	142·152	142·242
60	BM.31 / 57 P	60·4	G.T.S. ○ B M. Cut on platform coping opposite booking office at Acharapakkam Railway Station.	135·035	135·120
61	BM 32 / 57 P	61·6	G T S. ○ B M. Cut on W. end of N. abutment of bridge near telegraph post No. 60/4.	132·392	132·476
62	BM.33 / 57 P	63·1	G T.S. ○ B.M. Cut on N. end of W. parapet of N. abutment of bridge near telegraph post No. 61/14.	124·032	124·111
63	BM.34 / 57 P	64·2	G T S. □ B.M. at Perambur Railway Station Embedded opposite N corner of gatekeeper's house, about 100 yards S.W. of station house and 6½ feet N. of letters B.M. cut on N. corner, 7½ feet N E. of N E. pillar of verandah of gatekeeper's lodge, and 11 feet from nearest rail.	106·746	106·814
64	BM 35 / 57 P	65·7	G T S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 64/7.	92·041	92·099

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
65	BM 36 / 57 P	67·1	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 65/14.	105·737	105·804
66	BM.37 / 57 P	67·9	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 66/10.	99·185	99·248
67	BM 38 / 57 P	69·5	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 68/2.	116·734	116·808
68	BM.39 / 57 P	70·1	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Olakkur Railway Station.	129·215	129·297
69	BM.40 / 57 P	70·8	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 69/8.	127·316	127·397
70	BM.41 / 57 P	72·1	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 70/14.	143·949	144·041
71	BM.42 / 57 P	73·1	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 71/14.	154·073	154·171
72	BM.43 / 57 P	74·4	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 72/19.	176·853	176·966
73	BM.44 / 57 P	75·3	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 73/18.	169·698	169·806
74	BM.45 / 57 P	76·6	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 75/5.	146·172	146·265
75	BM.46 / 57 P	77·2	G.T.S. □ B.M. at Tindivanam Railway Station. Embedded near N.E. corner of tank-house, about 6 and 19 feet respectively from N.E. and S.E. corners of same, 5 feet from letters B.M. cut on E. wall and 27 feet from edge of platform. The tank-house is 5 chains N. of station.	144·631	144·724
76	BM 47 / 57 P	77·3	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Tindivanam Railway Station.	145·906	145·999
77	BM.48 / 57 P	78·5	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 77/2.	124·362	124·442

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
78	BM 49 / 57 P	79·9	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 78/10.	133·365	133·450
79	BM 50 / 57 P	80·9	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 79/10.	153·168	153·266
80	BM.51 / 57 P	82·0	G.T.S. ○ B.M. Cut on centre of W. parapet of bridge near telegraph post No. 80/11.	143·651	143·743
81	BM 52 / 57 P	83·1	G.T.S. □ B.M. at Mailam Railway Station. Embedded opposite W. wall of latrine, 14 feet and 22 feet respectively from N.W. and S.W. corners, 36 feet from nearest rail, and 7 feet from letters B.M. cut on wall opposite bench-mark.	161·838	161·942
82	BM 53 / 57 P	83·4	G.T.S. ○ B.M. Cut on W. parapet of small bridge near telegraph post No. 82/1.	167·782	167·890
83	BM.54 / 57 P	85·6	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 84/3.	150·525	150·622
84	BM 55 / 57 P	87·2	G.T.S. ○ B.M. Cut on W. end of first pier from N. of large bridge near telegraph post No. 85/13.	142·151	142·243
85	BM.56 / 57 P	87·7	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 86/6.	137·752	137·841
86	BM 57 / 57 P	89·0	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 87/12.	138·948	139·038
87	BM 58 / 57 P	90·0	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 88/12.	141·308	141·399
88	BM 59 / 57 P	92·4	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Vikravandi Railway Station.	130·453	130·537
89	BM 60 / 57 P	92·5	G.T.S. □ B.M. at Vikravandi Railway Station. Embedded between tank-house and well, 16 and 22 feet respectively from the S.W. and S.E. corners of tank-house, 10½ and 16 feet respectively from N.W. and N.E. corners of house over well, and 37 feet from nearest rail. The letters B.M. have been cut on S. wall of tank-house.	126·216	126·298
90	BM.61 / 57 P	93·3	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 91/16.	115·219	115·294

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks			Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
91		BM 62 / 57 P	95·1	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 93/14.	120·430	120·508
92		BM.1 / 58 M	96·9	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 95/11.	129·771	129·855
93		BM 2 / 58 M	98·0	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 96/12.	137·405	137·494
94		BM.3 / 58 M	99·4	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 98/1.	137·467	137·556
95		BM.4 / 58 M	100·3	G.T.S. □ B.M. at Villupuram Railway Station. Embedded 6 and 26½ feet respectively, from N.W. and N.E. corners of tank-house, 44 feet from S.W. corner of house over well, 10½ feet from nearest rail, and 6 feet from letters B.M. cut on N. wall of tank-house.	141·322	141·414
96		BM.5 / 58 M	100·4	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Villupuram Railway Station.	143·052	143·145
	1/96	BM 6 / 58 M	105·7	On top of rectangular protecting pillar of Kallapat G. T. Survey Trestle Station, lat. 11° 57′ 12″·30, long. 79° 33′ 52″·96. A principal station of South-East Coast Series. (For full description *see* Synoptical Volume).	202·698	202·830
97		BM.7 / 58 M	101·2	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 99/15.	138·377	138·467
98		BM.8 / 58 M	102·4	G.T.S. ○ B.M. Cut on W. parapet of bridge near telegraph post No. 101/2.	134·251	134·339
99		BM.9 / 58 M	103·9	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 102/11.	127·823	127·906
100		BM.10 / 58 M	104·4	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 103/2.	127·838	127·921
101		BM.11 / 58 M	105·3	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 104.	117·421	117·498
102		BM.12 / 58 M	107·5	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 106/3.	111·409	111·482

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
103	BM.13 / 58 M	109·0	G.T.S. ○ B.M.	Cut on W. end of S. abutment of bridge near telegraph post No. 107/12.	111·285	111·358
104	BM 14 / 58 M	109·7	G.T.S. ○ B.M.	Cut on W. end of N. abutment of bridge near telegraph post No. 108/8.	102·663	102·730
105	BM 15 / 58 M	111·6	G T S. ○ B.M.	Cut on W. end of N. abutment of bridge near telegraph post No. 110/5.	89·661	89·720
106	BM 16 / 58 M	112·5	G.T.S. ○ B.M.	Cut on platform coping opposite booking office at Panruti Railway Station.	83·492	83·547
107	BM 17 / 58 M	112·6	G T S □ B.M.	at Panruti Railway Station. Embedded 18 feet E. of coping of platform, and 10½ and 14 feet respectively from N W. and N E. corners of salt godown, which is 10 chains S.E. of station house. The letters B.M. are cut opposite bench-mark on N. wall of salt godown.	82·443	82·497
108	BM 18 / 58 M	114·0	G T S. ○ B.M.	Cut on S. end of E. abutment of bridge near telegraph post No. 112/12.	75·581	75·631
109	BM 19 / 58 M	115·5	G.T.S. ○ B.M.	Cut on S. end of W. abutment of bridge near telegraph post No. 114/5.	68·125	68·170
110	BM.20 / 58 M	117·0	G.T.S. ○ B.M.	Cut on S. end of E. abutment of bridge near telegraph post No. 115/13.	65·431	65·474
111	BM 21 / 58 M	119·2	G.T S. ○ B.M.	Cut on S. end of E. abutment of bridge near telegraph post No. 117/16.	54·256	54·292
112	BM 22 / 58 M	120·4	G T S. ○ B M.	Cut on basement of western distant semaphore at Nellikuppam Railway Station.	47·668	47·699
113	BM 23 / 58 M	120·7	G.T.S. ○ B M.	Cut on platform coping opposite booking office at Nellikuppam Railway Station.	48·031	48·063
114	BM 24 / 58 M	121·9	G.T.S. ○ B M.	Cut on S. end of E. abutment of bridge near telegraph post No. 120/11.	38·760	38·785
115	BM.25 / 58 M	123·6	G.T.S. ○ B.M.	Cut on S. parapet of small bridge near telegraph post No. 122/5.	28·529	28·548
116	BM.26 / 58 M	125·3	G.T S. ○ B.M.	Cut on surface of pier No. 6 of bridge over Gadilam river near telegraph post No. 124.	25·764	25·781

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
117	BM.27/58 M	126·7	G.T.S. ○ B.M. Cut on platform coping opposite telegraph office at Cuddalore (Gudalur) New Town Railway Station.	18·851	18·863
118	BM.28/58 M	127·8	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 126/10.	14·765	14·775
119	BM.29/58 M	129·1	G.T.S. □ B.M. at Cuddalore Old Town Railway Station. Embedded 11 and 6 feet respectively from S.W. and S.E. corners of weighing-house adjoining goods-shed, 7 feet from nearest rail, and 5½ feet from southern wall of weighing-house on which letters B.M. have been cut.	8·942	8·948
a/119	BM.30/58 M	129·1	G.T.S. ○ B.M. Cut on platform coping opposite telegraph office at Cuddalore Old Town Railway Station.	10·208	10·215
120	BM.31/58 M	129·4	G.T.S. ○ B.M. Cut on W. parapet of bridge near telegraph post No. 128/3.	8·254	8·259
121	BM.32/58 M	131·0	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 129/13.	17·921	17·933
122	BM.33/58 M	132·7	G.T.S. ○ B.M. Cut on E. parapet of bridge near telegraph post No. 131/8.	16·410	16·421
123	BM.34/58 M	134·0	G.T.S. ○ B.M. Cut on S. end of E. parapet of bridge near telegraph post No. 132/16.	11·802	11·810
124	BM.35/58 M	135·8	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 134/11.	13·337	13·346
125	BM.36/58 M	136·4	G.T.S. □ B.M. at Alapakkam Railway Station. Embedded opposite E. wall of latrine, 12 and 26 feet respectively from its S.E. and N.E. corners, 30 feet from nearest rail and 9 feet from letters B.M. cut opposite to it on eastern wall of latrine.	13·263	13·272
126	BM.37/58 M	136·4	G.T.S. ○ B.M. Cut on platform coping opposite telegraph office at Alapakkam Railway Station.	14·853	14·863
127	BM.38/58 M	137·7	G.T.S. ○ B.M. Cut on N. abutment near N. end of E. girder of bridge near telegraph post No. 136/9.	13·592	13·601
128	BM.39/58 M	139·1	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 137/17.	14·832	14·842

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
129	BM.40 / 58 M	142·1	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 140/17.	14·871	14·881
130	BM.41 / 58 M	143·7	G.T.S. ○ B.M. Cut on E. end of S. abutment of bridge near telegraph post No. 142/11.	13·778	13·787
131	BM.42 / 58 M	144·6	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 143/9.	12·847	12·856
132	BM.43 / 58 M	146·1	G.T.S. ○ B.M. Cut on platform coping opposite telegraph office at Porto Novo Railway Station.	13·186	13·195
133	BM 44 / 58 M	146·2	G.T.S. □ B.M. at Porto Novo Railway Station. Embedded 6½ and 19½ feet respectively from N W. and S.W. corners of tank-house and 28½ feet from nearest rail. The letters B.M. have been cut on W. wall of tank-house.	10·861	10·868
134	BM 45 / 58 M	147·5	G.T.S. ○ B.M. Cut on S. abutment near S. end of W. girder of bridge near telegraph post No. 146/7.	12·016	12·024
135	BM 46 / 58 M	148·7	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 147/10.	12·508	12·516
136	BM 47 / 58 M	149·9	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge near telegraph post No. 148/13.	13·910	13·919
137	BM 48 / 58 M	150·9	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 149/13.	16·571	16·582
138	BM 49 / 58 M	152·8	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Chidambaram Railway Station.	16·541	16·552
139	BM 50 / 58 M	152·9	G.T.S. □ B.M. at Chidambaram Railway Station. Embedded 5 and 27½ feet respectively from S.W. and S.E corners of goods-shed and 21 feet from nearest rail. The letters B.M. have been cut on S. wall of goods-shed opposite bench-mark.	17·386	17·398
140	BM 51 / 58 M	153·9	G.T.S. ○ B.M. Cut on W. parapet of N. abutment of girder bridge near telegraph post No. 152/13.	16·544	16·555
141	BM 52 / 58 M	155·2	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 154/1.	18·936	18·949

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
142	BM 53 / 58 M	155·3	G.T.S. ○ B.M.	Cut on S. abutment near foot of S. end of E. girder of bridge near telegraph post No. 154/2.	17·593	17·605
143	BM 54 / 58 M	157·2	G.T.S. ○ B.M.	Cut on N. end of W. parapet of bridge near telegraph post No. 156/2.	22·261	22·276
144	BM.55 / 58 M	157·4	G.T.S. ○ B.M.	Cut on platform coping opposite booking office at Coleroon (Kolladam) Railway Station.	21·009	21·023
145	BM 56 / 58 M	159·6	G.T.S. ○ B.M.	Cut on N. end of W. parapet of bridge near telegraph post No. 158/8.	19·701	19·714
146	BM.57 / 58 M	160·5	G.T.S. ○ B.M.	Cut on W. parapet of S. abutment of bridge near telegraph post No. 159/7.	22·005	22·020
147	BM.58 / 58 M	161·9	G.T.S. ○ B.M.	Cut on W. parapet of bridge near telegraph post No. 160/12.	18·325	18·337
148	BM.59 / 58 M	162·7	G.T.S. ○ B.M.	Cut on S. end of W. parapet of bridge near telegraph post No. 161/8.	18·666	18·679
149	BM.60 / 58 M	163·5	G.T.S. □ B.M.	at Shiyali Railway Station. Embedded 6 and 27 feet respectively, from S.E. and S.W. corners of goods-shed and 21 feet from nearest rail. The letters B.M. are cut on S. wall of goods-shed opposite bench-mark.	20·977	20·991
150	BM.61 / 58 M	163·6	G.T.S. ○ B.M.	Cut on platform coping opposite booking office at Shiyali Railway Station.	20·931	20·945
151	BM.62 / 58 M	164·4	G.T.S. ○ B.M.	Cut on N. end of W. parapet of bridge near telegraph post No. 163/5.	18·319	18·331
152	BM.63 / 58 M	165·4	G.T.S. ○ B.M.	Cut on S. end of E. parapet of bridge near telegraph post No. 164/5.	16·781	16·792
153	BM.64 / 58 M	167·1	G.T.S. ○ B.M.	Cut on platform coping opposite booking office at Vaidisvarankoyil Railway Station.	22·335	22·350
154	BM 65 / 58 M	168·5	G.T.S. ○ B.M.	Cut on W. end of S. abutment of bridge near telegraph post No. 167/4.	25·706	25·723
155	BM.66 / 58 M	169·8	G.T.S. ○ B.M.	Cut on E. end of S. abutment of bridge near telegraph post No. 168/10.	27·449	27·468

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
156	BM 67 / 58 M	171·4	G.T.S. ○ B.M. Cut on W. parapet of bridge near telegraph post No $\frac{170}{4}$.	25·719	25·736
157	BM.68 / 58 M	172·9	G.T.S. ○ B.M. Cut on centre of W. parapet of bridge near telegraph post No. $\frac{171}{14}$.	30·413	30·434
158	BM 69 / 58 M	174·3	G.T.S. ○ B.M. Cut on W. parapet of bridge near telegraph post No. $\frac{173}{3}$.	36·244	36·269
159	BM 70 / 58 M	175·7	G.T.S. □ B.M. at Mayavaram Railway Station. Embedded flush with the ground opposite S wall of goods-shed, 7 and 26 feet respectively from S.E. and S W corners of goods-shed, and 18 feet from nearest rail. The letters B M. have been cut on S. wall of goods-shed opposite bench-mark.	46·823	46·855
160	BM 71 / 58 M	175·8	G T S. ○ B M. Cut on platform coping opposite booking office at Mayavaram Railway Station.	46·173	46·204
161	BM 72 / 58 M	176·3	G T S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. $\frac{175}{4}$.	39·799	39·826
162	BM 73 / 58 M	177·0	G T S. ○ B M. Cut on S. end of E. abutment of bridge near telegraph post No. $\frac{175}{14}$.	42·458	42·487
163	BM 74 / 58 M	177·4	G.T S. ○ B.M. Cut on S. end of E. abutment of bridge near telegraph post No. $\frac{176}{6}$.	42·480	42·509
164	BM 75 / 58 M	178·1	G.T.S. ○ B.M. Cut on N. end of W. abutment of bridge near telegraph post No. $\frac{176}{17}$.	44·952	44·983
165	BM 76 / 58 M	179·8	G.T.S. ○ B.M. Cut on E. end of N. parapet of bridge near telegraph post No. $\frac{178}{12}$.	47·429	47·461
166	BM 77 / 58 M	181·1	G T S. ○ B M. Cut on platform coping opposite booking office at Kattalai Railway Station.	54·529	54·566
a 166	BM 78 / 58 M	181·3	Rail at Kattalai Railway Station, opposite booking office. (Railway bench-mark).	53·480	53·516
167	BM.79 / 58 M	182·3	G.T S. ○ B.M. Cut on N. end of W. parapet of bridge near telegraph post No. $\frac{181}{2}$.	52·302	52·338
168	BM.80 / 58 M	183·5	G.T S. ○ B.M. Cut on E. parapet of bridge near telegraph post No. $\frac{182}{8}$.	55·436	55·474

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
169	BM.81 / 58 M	185·1	G.T.S. ○ B.M. Cut on platform opposite booking office at Narasinganpettai Railway Station.	65·541	65·586
170	BM.82 / 58 M	185·2	G.T.S. □ B.M. at Narasinganpettai Railway Station. Embedded 7½ and 28 feet respectively from W. and S. corners of goods-shed and 24 feet from nearest rail. The letters B.M. have been cut on S W. wall of goods-shed opposite bench-mark.	65·493	65·538
171	BM 83 / 58 M	185·8	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 184/12.	62·950	62·993
172	BM.84 / 58 M	187·0	G T S. ○ B M. Cut on N. end of E. abutment of bridge near telegraph post No. 185/17.	72·033	72·082
173	BM.85 / 58 M	188·0	G.T S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 186/16.	65·544	65·589
174	BM 99 / 58 N	188·8	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 187/11.	66·503	66·549
175	BM.100 / 58 N	190·1	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Tiruvadamarudur Railway Station.	72·581	72·631
176	BM.101 / 58 N	191·6	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 190/9.	74·935	74·986
177	BM.102 / 58 N	192·7	G.T.S ·○ B.M. Cut on N. end of W. abutment of bridge near telegraph post No. 191/11.	76·655	76·708
178	BM 103 / 58 N	193·2	G.T.S. ○ B.M. Cut on S. end of W. abutment of bridge near telegraph post No. 192/1.	79·338	79·392
179	BM 104 / 58 N	194·5	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 193/7.	81·596	81·652
180	BM.105 / 58 N	195·1	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Kumbakonam Railway Station.	85·690	85·749
1/180	BM.106 / 58 N	196·8	B.○M. at Kumbakonam College. Cut on stone at foot of third iron post from W. supporting railing enclosing platform N.W. of G.T. Survey Tower Station.	90·861	90·923
2/180	BM.107 / 58 N	196·8	On surface of stone slab of Kumbakonam G.T. Survey Station, lat. 10° 58′ 7″·97, long. 79° 23′ 1″·44. This is a principal station of the South-East Coast Series. (For full description *see* Synoptical Volume).	138·015	138·110

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
181	BM 108 / 58 N	195·2	G.T.S. □ B.M. at Kumbakonam Railway Station. Embedded 19 and 5 feet respectively from E. and S. corners of reservoir, 30 feet from nearest rail and 38 feet N.W. of pump. The letters B.M. have been cut on S.E. wall of reservoir.	84·051	84·109
182	BM 109 / 58 N	195·8	G.T.S. ○ B.M. Cut on S. end of first pier from E. of bridge near telegraph post No. 194/11.	90·578	90·640
183	BM 110 / 58 N	197·1	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 196/1.	84·341	84·399
184	BM.111 / 58 N	198·3	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge near telegraph post No. 197/5.	88·423	88·484
185	BM 112 / 58 N	199·6	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge near telegraph post No. 198/10.	91·166	91·229
186	BM 113 / 58 N	200·7	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Sundaraperumalkoyil Railway Station.	98·257	98·325
187	BM 114 / 58 N	202·1	G.T.S. ○ B.M. Cut on E end of S. abutment of bridge near telegraph post No. 201/2.	107·518	107·592
188	BM 115 / 58 N	203·2	G.T.S. ⊙ B.M. Cut on W. end of N parapet of bridge near telegraph post No. 202/3.	98·949	99·017
189	BM.116 / 58 N	204·0	G.T.S. □ B.M. at Papanasam Railway Station. Embedded 6 and 26½ feet respectively from N.E and S.E. corners of goods-shed, 25 feet from nearest rail, and 5½ feet from letters B.M. cut on eastern wall of goods-shed opposite bench-mark.	104·440	104·512
190	BM.117 / 58 N	204·1	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Papanasam Railway Station.	103·796	103·867
191	BM.118 / 58 N	204·6	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 203/9.	102·040	102·110
192	BM.119 / 58 N	206·0	G.T.S. ○ B.M. Cut on E. end of N. parapet of bridge near telegraph post No. 205.	105·240	105·312
193	BM.120 / 58 N	207·1	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 206/3.	108·887	108·962
194	BM.121 / 58 N	208·5	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Ayyampettai Railway Station.	114·091	114·169

Main-Line 9. (Madras to Tanjore).

Designation of Bench-marks		Distance from Madras	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
195	BM.122 / 58 N	209·8	G.T.S. ○ B.M. Cut on N. end of W. parapet of bridge near telegraph post No. 208/15.	116·527	116·607
196	BM.123 / 58 N	210·9	G.T.S. ○ B.M. Cut on S. end of W. parapet of bridge near telegraph post No. 210.	115·854	115·934
197	BM.124 / 58 N	212·1	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge near telegraph post No. 211/3.	125·074	125·160
198	BM.125 / 58 N	212·5	Rail at Vettar River bridge, near telegraph post No. 211/9 (Railway bench-mark.)	127·837	127·925
199	BM.126 / 58 N	213·1	Rail at Titte Railway Station, opposite booking office, near telegraph post No. 212/3.	127·082	127·170
200	BM.127 / 58 N	213·2	G.T.S. ○ B.M. Cut on platform coping of goods-shed at Titte Railway Station.	128·506	128·595
201	BM.128 / 58 N	214·3	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 213/6.	127·000	127·088
202	BM.129 / 58 N	215·2	Rail at Vennar River bridge, near telegraph post No. 214/4 (Railway bench-mark).	130·940	131·030
203	BM.130 / 58 N	215·7	G.T.S. ○ B.M. Cut on W. parapet of bridge near telegraph post No. 214/14.	123·643	123·728
204	BM.131 / 58 N	216·9	G.T.S. ○ B.M. Cut on E. end of N. abutment of bridge near telegraph post No. 216.	140·420	140·517
205	BM.132 / 58 N	218·1	G.T.S. ○ B.M. Cut on S. parapet of bridge near telegraph post No. 217/4.	159·851	159·962
206	BM.133 / 58 N	219·2	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Tanjore Railway Station.	191·898	192·031
207	BM.1 / 58 N	219·3	G.T.S. □ B.M. Embedded at Tanjore Railway Station. Situated in angle formed by N. wall of old goods-shed, and E. wall of goods office, 3½ feet N. of N. wall of old goods-shed, 7 feet N.W. of N.W. corner of step of goods-shed and 5 feet E. of E. wall of goods office. The letters B.M. are cut on E. wall of goods office.	193·266	193·400

Main-Line 10. (Arkonam to Jalarpet).

Designation of Bench-marks		Distance from Arkonam	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 1 / 57 O	0·0	G.T.S. □ B.M. at Arkonam Railway Station. Embedded in a solid block of masonry 3 feet below level of platform between railway mail service office and plague examination shed. The following are distances and bearings, respectively of surrounding objects from bench-mark :—N.E. corner of station house 142 feet, 267°; N.W. corner of railway mail service office 21 feet, 53°; S.W. corner of same 25 feet, 128°. A large stone slab has been laid over B.M. about level of platform.	293·105	293·283
2	BM.19 / 57 O	0·0	G.T.S. ○ B.M. Cut on N. platform coping of Beypore line below passenger over-bridge at Arkonam Railway Station.	295·663	295·842
3	BM.20 / 57 O	1·0	G.T.S. ○ B.M. Cut on E. abutment of bridge No. 203 near telegraph post No. $\frac{43}{8}$.	307·893	308·080
4	BM 21 / 57 O	2·4	B.M. Cut on W. abutment of girder opening No. 205 near telegraph post No. $\frac{44}{14}$ (Railway bench-mark).	331·920	332·121
5	BM 22 / 57 O	4·3	B.M. Cut on S. parapet of bridge No. 211 near telegraph post No. $\frac{46}{15}$ (Railway bench-mark).	345·870	346·080
6	BM 23 / 57 O	5·6	B.M. Cut on S. cap of first pier from W. of girder opening No. 214 near telegraph post No. $\frac{48}{1}$ (Railway bench-mark).	349·257	349·469
7	BM 24 / 57 O	6·4	B.M. Cut on E. abutment of bridge No. 219 near telegraph post No. $\frac{48}{14}$ (Railway bench-mark).	352·539	352·753
8	BM.25 / 57 O	7·3	G.T.S. ○ B.M. Cut on N. platform coping 1 chain E. of signal staff at Minnal Railway Station.	355·004	355·219
9	BM 26 / 57 O	10·2	B.M. Cut on S. parapet of bridge No. 229 near telegraph post No. $\frac{52}{12}$ (Railway bench-mark).	387·743	387·979
10	BM 27 / 57 O	11·5	B.M. Cut on S. parapet of bridge No. 231 near telegraph post No. $\frac{53}{16}$ (Railway bench-mark).	407·082	407·329
11	BM 28 / 57 O	12·0	B.M. Cut on S. parapet of bridge No. 232 near telegraph post No. $\frac{54}{11}$ (Railway bench-mark).	411·778	412·029
12	BM 29 / 57 O	13·3	B.M. Cut on E. end of S. passenger platform coping at Sholinghur (Sholangipuram) Railway Station. (Railway bench-mark).	419·627	419·883
a 12	BM.30 / 57 O	13·3	G.T.S. □ B.M. at Sholinghur Railway Station. Embedded within railway compound 8 feet N.W. of W. pillar of N. gate, 5 feet W. of compound wall where letters B.M. are cut, and 29 yards N.E. of bench-mark cut on E. end of S. passenger platform.	417·778	418·032

Main-Line 10. (Arkonam to Jalarpet).

Designation of Bench-marks			Distance from Arkonam	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
13		BM.31 / 57 O	14·8	G.T.S. ○ B.M. Cut on E. abutment of bridge No. 242 between telegraph posts Nos. 57/5 and 57/6.	433·247	433·511
14		BM 32 / 57 O	16·6	↗ B.M. at bridge. Cut on top of S. cap of W. abutment of girder opening No. 247 between telegraph posts Nos. 59/2 and 59/3 (Railway bench-mark).	449·204	449·477
15		BM.33 / 57 O	18·0	G.T.S. ○ B.M. Cut on E. abutment of bridge No. 257 near telegraph post No. 60/10.	476·183	476·473
16		BM 63 / 57 P	20·8	B.M. Cut on S. parapet of bridge No. 268 near telegraph post No. 63/6 (Railway bench-mark).	532·757	533·082
17		BM.64 / 57 P	22·0	B.M. Cut on S. parapet of bridge No. 269 near telegraph post No. 64/9 (Railway bench-mark).	557·157	557·497
18		BM.65 / 57 P	22·6	G.T.S. ○ B.M. Cut on S. passenger platform coping opposite booking office at Arcot (Arkad) Railway Station.	579·613	579·967
	1/18	BM 66 / 57 P	27·0	On top of rectangular protecting pillar of Anandalamalai G. T. Survey Station, lat. 12° 55′ 50″·73, long. 79° 23′ 46″·76. A principal station of Madras Longitudinal Series. (For full description *see* Synoptical Volume).	926·374	926·939
19		BM.67 / 57 P	22·7	G.T.S. □ B.M. at Arcot Railway Station. Embedded near N.E. corner of tank-house situated 4 chains W. of booking office, 7 feet from N.E. corner of tank-house, 8 feet from centre of eastern wall and 5 feet E. of letters B.M. cut on wall.	577·579	577·932
20		BM.68 / 57 P	24·7	G.T.S. ○ B.M. Cut on W. abutment of bridge No. 276 near telegraph post No. 67/3.	615·940	616·316
21		BM 69 / 57 P	26·0	B.M. at bridge. Cut on S. coping of W. abutment of girder opening No. 287 near telegraph post No. 68/8 (Railway bench-mark).	637·718	638·107
22		BM 70 / 57 P	27·5	G.T.S. ○ B.M. Cut on parapet of bridge No. 292 near telegraph post No. 69/19.	640·843	641·234
23		BM 71 / 57 P	28·6	↗ B.M. Cut on E. abutment of bridge No. 297 over Ponniar river (Railway bench-mark).	635·296	635·683
24		BM.72 / 57 P	29·0	B.M. Cut on coping of W. abutment of bridge No. 297 over Ponniar river (Railway bench-mark).	634·346	634·733

Main-Line 10. (Arkonam to Jalarpet).

Designation of Bench-marks		Distance from Arkonam	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
25	BM 73 / 57 P	30·5	G.T.S. ○ B.M. Cut on coping near W. end of platform and opposite signal staff at Tiruvalam Railway Station.	632·323	632·709
26	BM 74 / 57 P	31·5	B.M. Cut on S. parapet of bridge No. 318 near telegraph post No. 74/1 (Railway bench-mark).	624·813	625·194
27	BM 75 / 57 P	33·6	G.T.S. ○ B.M. Cut on N. parapet of bridge No. 332 near telegraph post No. 76/3.	645·378	645·771
28	BM 76 / 57 P	36·4	B.M. Cut on S. parapet of bridge No. 343 near telegraph post No. 78/16 (Railway bench-mark).	677·786	678·200
29	BM 77 / 57 P	37·8	G.T.S. ○ B.M. Cut on platform coping opposite station master's office at Vellore (Raya-Ellur) Railway Station.	699·787	700·214
30	BM 78 / 57 P	37·9	G.T.S. □ B.M. at Vellore Railway Station. Embedded in a masonry pillar 3½ feet square and 2 feet deep, having its upper surface about 3 inches below ground level, 4 feet due E. of centre of E wall of gate-keeper's house at level crossing 150 yards W. of station. The letters B.M. are cut on E. wall of gate-keeper's house.	697·040	697·465
31	BM 79 / 57 P	39·2	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 362 near telegraph post No. 81/12.	712·295	712·729
32	BM 80 / 57 P	40·5	B.M. at bridge. Cut on S. parapet of E. abutment of girder opening No 366 near telegraph post No. 83/1 (Railway bench-mark).	735·964	736·413
33	BM 81 / 57 P	41·6	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 370 near telegraph post No. 84/2	755·222	755·683
34	BM 82 / 57 P	42·1	G.T.S. ○ B.M. Cut on W. abutment of bridge No. 375 between telegraph posts Nos 84/11 and 84/12.	761·598	762·063
35	BM 83 / 57 P	42·9	G.T.S. ○ B.M. Cut on E. abutment of bridge No. 385 near telegraph post No. 85/7.	765·567	766·034
36	BM 84 / 57 P	43·6	B.M. Cut on S. parapet of bridge No. 393 near telegraph post No. 86/2 (Railway bench-mark).	770·212	770·682
37	BM 85 / 57 P	45·0	B.M. Cut on S. parapet of bridge No. 398 near telegraph post No. 87/10 (Railway bench-mark).	784·904	785·383

Main-Line 10. (Arkonam to Jalarpet).

Designation of Bench-marks		Distance from Arkonam	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
38	BM.86 / 57 P	46·0	G.T.S. ○ B.M.	Cut on platform coping opposite centre of 3rd class waiting room at Virinchipuram Railway Station.	790.815	791·298
39	BM.87 / 57 P	48·0	G.T.S. ○ B.M.	Cut on S. parapet of bridge No. 420 near telegraph post No. 90/9.	800·094	800·583
40	BM 40 / 57 L	48·9	B.M.	Cut on S. parapet of bridge No. 431 between telegraph posts Nos. 91/6 and 91/7 (Railway bench-mark).	809·568	810·063
41	BM.41 / 57 L	49·9	G.T.S. ○ B.M.	Cut on S. parapet of bridge No. 435 near telegraph post No. 92/7.	820·103	820·604
42	BM 42 / 57 L	50·6	G.T.S. ○ B.M.	Cut on S. parapet of bridge No. 438 near telegraph post No. 93/3.	827·350	827·855
43	BM.43 / 57 L	52·0	B.M.	Cut on S. parapet of bridge No. 447 near telegraph post No. 94/9 (Railway bench-mark).	850·454	850·973
44	BM.44 / 57 L	53·2	B.M.	Cut on platform coping opposite signal staff at Gudiyattam Railway Station (Railway bench-mark).	869·583	870·115
45	BM.45 / 57 L	53·2	G.T.S. □ B.M.	at Gudiyattam Railway Station. Embedded 12 feet due W. of centre of western wall of tank-house, on which letters B.M. have been cut. The tank-house is situated within railway enclosure, about 45 yards south of signal staff, and same distance E. of assistant station master's quarters, and the bench-mark lies 15 feet from its N.W. and S.W. corners.	863·709	864·237
46	BM.46 / 57 L	54·4	G.T.S. ○ B.M.	Cut on S. parapet of bridge No. 463 near telegraph post No. 96/17.	875·568	876·104
47	BM.47 / 57 L	54·9	G.T.S. ○ B.M.	Cut on S. parapet of bridge No. 470 over the Gudiyattam river.	880·901	881·440
48	BM.48 / 57 L	56·4	B.M.	Cut on S. parapet of bridge No. 481 near telegraph post No. 98/16 (Railway bench-mark).	883·061	883·601
49	BM 49 / 57 L	57·9	B.M.	Cut on E. parapet of bridge No. 485 near telegraph post No. 100/7 (Railway bench-mark).	897·686	898·236
50	BM 50 / 57 L	59·3	G.T.S. ○ B.M.	Cut on platform coping opposite signal staff at Ulli Railway Station.	925·525	926·093
51	BM.51 / 57 L	60·4	B.M.	Cut on centre of left parapet of bridge No. 498 near telegraph post No. 102/15 (Railway bench-mark).	925·302	925·870

Main-Line 10. (Arkonam to Jalarpet).

Designation of Bench-marks		Distance from Arkonam	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
52	BM 52 / 57 L	61·6	B.M. at bridge. Cut on S. parapet of W. abutment of girder opening No. 502 near telegraph post No. 104/2 (Railway bench-mark).	947·162	947·743
53	BM 53 / 57 L	63·0	G.T.S. □ B.M. at Mailpatti Railway Station. Embedded within railway enclosure opposite N. wall of tank-house, 15 feet from its centre where letters B M. have been cut and 18 and 17 feet respectively from N W. and N E. corners of same The tank-house is to W. of rails and 30 yards N. of station house.	950·472	951·056
54	BM.54 / 57 L	63·1	G.T.S. ○ B.M. Cut on platform coping opposite latrine at Mailpatti Railway Station.	951·636	952·221
55	BM 55 / 57 L	63·8	G T S. ○ B.M. Cut on E. parapet of S. abutment of bridge No. 509 over Palar river.	964·150	964·743
56	BM.56 / 57 L	64·1	B.M. Cut on E. parapet of bridge No. 510 near telegraph post No. 106/11 (Railway bench-mark).	969·228	969·825
57	BM.57 / 57 L	66·3	G.T S. ○ B M. Cut on E. abutment of bridge No. 518 near telegraph post No. 108/14.	986·700	987·308
58	BM 58 / 57 L	66·6	B M. Cut on left parapet of bridge No. 519 near telegraph post No. 109/3 (Railway bench-mark).	992·760	993·373
59	BM 59 / 57 L	68·8	B.M. at bridge. Cut on S. parapet of W. abutment of girder opening No. 525 near telegraph post No. 111/8 (Railway bench-mark).	1030·302	1030·939
60	BM.60 / 57 L	70·2	G T S. ○ B M. Cut on platform coping opposite booking office at Ambur Railway Station.	1064·098	1064·755
61	BM 61 / 57 L	71·1	G.T S. ○ B M. Cut on E. end of N. abutment of bridge No. 531 near telegraph post No. 113/12.	1065·488	1066·147
62	BM.62 / 57 L	72·9	B.M. Cut on E. parapet of bridge No. 536 near telegraph post No. 115/8 (Railway bench-mark).	1087·401	1088·074
63	BM 63 / 57 L	74·3	B.M. Cut on S. parapet of bridge No. 541 near telegraph post No. 116/19 (Railway bench-mark).	1098·673	1099·354
64	BM 64 / 57 L	76·1	G.T.S. ○ B.M. Cut on W. abutment of bridge No. 545 near telegraph post No. 118/11.	1111·057	1111·747

Main-Line 10. (Arkonam to Jalarpet).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Arkonam	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
65	BM 65 / 57 L	78·0	B.M. Cut on E. parapet of bridge No. 554 near telegraph post No. 120/10 (Railway bench-mark).	1134·184	1134·888
66	BM.66 / 57 L	78·8	B.M. at bridge. Marked on S. parapet of W. abutment of girder opening No. 559 near telegraph post No. 121/9. (Railway bench-mark).	1142·880	1143·591
a 66	BM 67 / 57 L	80·2	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Vaniyambadi Railway Station.	1155·018	1155·736
67	BM.68 / 57 L	80·2	G.T.S. □ B.M. at Vaniyambadi Railway Station. Embedded within railway enclosure, 7 feet N. of telegraph post No. 122/14, 20 feet from nearest rail, and 40 feet S.E. from bench-mark cut on coping of station platform opposite booking office.	1150·939	1151·655
68	BM.69 / 57 L	81·4	G.T.S. ○ B.M. Cut on N. parapet of W. abutment of girder bridge No. 569 at mile-post No. 124.	1159·439	1160·161
69	BM 70 / 57 L	83·6	B.M. Cut on E. parapet of bridge No. 579 near telegraph post No. 126/4 (Railway bench-mark).	1186·453	1187·193
70	BM.71 / 57 L	84·3	B.M. Cut on E. parapet of bridge No. 582 near telegraph post No. 126/19 (Railway bench-mark).	1202·339	1203·089
71	BM.72 / 57 L	85·3	G.T.S. ○ B.M. Cut on centre of coping of station platform at Kottandapatti Railway Station.	1230·927	1231·695
72	BM.73 / 57 L	87·3	B.M. Cut on E. parapet of bridge No. 596 near telegraph post No. 129/18 (Railway bench-mark).	1274·014	1274·812
73	BM.74 / 57 L	88·7	G.T.S. ○ B.M. Cut on N. abutment of bridge No. 602 near telegraph post No. 131/6.	1300·678	1301·491
74	BM.75 / 57 L	89·3	G.T.S. ○ B.M. Cut on coping of S.W. line platform opposite booking office at Jalarpet Junction Railway Station.	1322·008	1322·836
75	BM.1 / 57 L	89·3	G.T.S. □ B.M. at Jalarpet Junction Railway Station. Embedded opposite S. wall of Semaphore Tower on Beypore line and right in front of station, 13 and 17 feet respectively from S.E. and S.W. corners of tower, and 33 feet E. of bench-mark cut on coping of S.W. line platform opposite booking office. The letters B.M. are cut on S. wall of tower from which bench-mark is 13 feet distant.	1319·482	1320·308

Main-Line 11. (Erode to Shoranur).

Designation of Bench-marks		Distance from Erode	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.36 / 58 E	0·0	G.T S. □ B.M. at Erode Railway Station. Embedded near southern wall of Madras railway engine-shed, 10 feet from S.W. corner of shed, 12 feet from end of wall towards rails, and 10 feet from centre of wall on which letters B.M. are cut.	539·021	539·384
2	BM.58 / 58 E	1·4	B.O.M. Cut on E. end of S. abutment of bridge No. 150 near telegraph post No. 244/11.	581·196	581·587
3	BM.59 / 58 E	3·0	↗ B.M. Cut on centre of W. parapet of bridge No. 154 near telegraph post No. 246/4 (Railway bench-mark).	631·512	631·938
4	BM 60 / 58 E	4·1	↗ B.M. at bridge. Cut on W. end of pier of double girder opening No. 155 near telegraph post No. 247/6 (Railway bench-mark).	669·752	670·204
5	BM 61 / 58 E	7·0	↗ B.M. Cut on centre of S.W. parapet of bridge No. 163 near telegraph post No. 250/4 (Railway bench-mark).	781·954	782·482
6	BM.62 / 58 E	9·0	↗ B.M. Cut on E. end of platform coping at Perundurai Railway Station. (Railway bench-mark).	852·617	853·194
a/6	BM 63 / 58 E	9·0	G.T S. □ B.M. at Perundurai Railway Station. Embedded near N.E. end of station house, 21 feet N. of B.M. No 6, 26 feet W. of station semaphore and 3 feet from compound wall.	853·123	853·700
7	BM 64 / 58 E	9·6	G.T S. ○ B.M. Cut on E. end of S. abutment of bridge No. 171 near telegraph post No. 252/16.	852·785	853·362
8	BM 65 / 58 E	10·5	B.O.M. Cut on cap at W. end of N abutment of bridge No. 173 near telegraph post No. 253/15.	873·673	874·264
9	BM.66 / 58 E	11·8	↗ B.M. Cut on rock on W. side of cutting opposite mile-post No. 255 from Madras. (Railway bench-mark).	905·964	906·576
10	BM 67 / 58 E	12·8	Mile-post No. 256 from Madras. At level crossing on road from Perundurai village to Chennimalai.	920·910	921·534
1/10	BM 68 / 58 E	17·4	B.O.M. Cut on 2nd step from bottom of mandapam at foot of Chennimalai hill.	872·599	873·190
2/10	BM.69 / 58 E	18·8	On top of rectangular protecting pillar of Chennimalai G. T. Survey Station, lat. 11° 9′ 21″·00, long. 77° 35′ 16″·07. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1749·000	1750·184

Main-Line 11. (Erode to Shoranur).

Designation of Bench-marks		Distance from Erode	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
11	BM.70 / 58 E	13·3	B.↗M. at Bridge. Cut on N. end of W. abutment of triple girder opening No. 180 near telegraph post No. 256/10 (Railway bench-mark).	923·705	924·331
12	BM.71 / 58 E	14·8	↗ B.M. Cut on E. end of S. abutment of surface drain No. 184 near telegraph post No. 258/1 (Railway bench-mark).	935·626	936·260
13	BM.72 / 58 E	18·8	B.○M. Cut on W. parapet of bridge No. 192 near telegraph post No. 261/20 (Railway bench-mark).	893·775	894·381
14	BM.73 / 58 E	20·1	↗ B.M. at Bridge. Cut on W. end of 12-feet girder opening No. 196 near telegraph post No. 263/7 (Railway bench-mark).	871·401	871·992
15	BM.74 / 58 E	21·3	B ○M. at Bridge. Cut on N. end of girder opening No. 198 near telegraph post No. 264/10 (Railway bench-mark).	903·898	904·512
16	BM.75 / 58 E	23·3	G.T.S. □ B.M. at Uttukuli Railway Station. Embedded 9 feet from letters B.M. cut on S.W. wall of tank-house, and 10 and 13 feet respectively from W. and S corners of same. The tank-house is situated at N.E. end of station platform.	977·043	977·706
17	BM.76 / 58 E	23·3	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Uttukuli Railway Station.	980·183	980·848
18	BM.77 / 58 E	24·1	•/\ B.M. Cut on N. parapet of bridge No. 203 near telegraph post No. 267/8 (Railway bench-mark).	963·798	964·453
19	BM.78 / 58 E	24·7	/\ B.M. Cut on N. parapet of bridge No. 204 near telegraph post No. 267/19 (Railway bench-mark).	955·044	955·692
20	BM.79 / 58 E	26·0	/\ Cut on W. parapet of bridge No. 207 near telegraph post No. 269/5 (Railway bench-mark).	951·439	952·085
21	BM.80 / 58 E	27·2	/\ Cut on rock on W. side of line in slope of cutting between telegraph posts Nos. 270/11 and 270/10.	951·728	952·375
22	BM.81 / 58 E	27·8	/\ B.M. Cut on W. parapet of bridge No. 210 near telegraph post No. 271/1 (Railway bench-mark).	949·404	950·049
23	BM.82 / 58 E	28·7	/\ B.M. Cut on W. parapet of bridge No. 212 near telegraph post No. 271/20 (Railway bench-mark).	949·310	949·955

Main-Line 11. (Erode to Shoranur).

Designation of Bench-marks		Distance from Erode	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
24	BM 83 / 58 E	31·7	B O M.	Cut on passenger platform coping, ½ chain W of signal staff at Tiruppur Railway Station. (Railway bench-mark).	988·330	989·003
25	BM 84 / 58 E	31·7	G T S. ○ B.M.	Cut on W. end of passenger platform coping at Tiruppur Railway Station.	988·476	989·149
26	BM 85 / 58 E	32·4	↗ B M.	Cut on N. parapet of bridge No. 222 near telegraph post No. 275/15 (Railway bench-mark)	990·520	991·195
27	BM 86 / 58 E	33·5	↗ B.M.	Cut on N. parapet of bridge No. 225 near telegraph post No. 276/16 (Railway bench-mark).	996·856	997·535
28	BM 87 / 58 E	35·0	↗	Cut on N. parapet of bridge No. 229 near telegraph post No. 278/6 (Railway bench-mark).	1019·255	1019·949
29	BM 88 / 58 E	35·9	B O M.	Cut on W. end of N. parapet of bridge No. 232 near telegraph post No. 279/3.	1023·962	1024·658
30	BM 89 / 58 E	36·6	G T.S. □ B M.	at Mangalam Railway Station. Embedded 17 feet south of gatekeeper's house on N margin of line, 8 chains E of station house, 19 feet from both N.W and S.W corners of gatekeeper's house, and 26 feet N. of nearest rail. The letters B.M are cut on E side of door of gatekeeper's house.	1043·723	1044·433
31	BM.90 / 58 E	36·7	G T.S. ○ B M.	Cut on W. end of platform coping at Mangalam Railway Station.	1050·836	1051·551
32	BM 91 / 58 E	38·2	⋀ B M.	Cut on W. parapet of bridge No. 238 between telegraph posts Nos 281/10 and 281/11 (Railway bench-mark).	1059·602	1060·324
33	BM.92 / 58 E	40·1	⋀ B M.	Cut on E. parapet of bridge No. 244 near telegraph post No. 283/8 (Railway bench-mark).	1080·425	1081·159
34	BM 93 / 58 E	40·7	⋀ B M.	Cut on rock in W. slope of cutting 1 chain N. of mile-post No. 284. (Railway bench-mark).	1096·156	1096·901
35	BM 94 / 58 E	41·2	⋀ B M.	Cut on centre of N. parapet of bridge No. 246 near telegraph post No. 284/11 (Railway bench-mark).	1094·104	1094·848
36	BM.95 / 58 E	42·2	⋀ B M	Cut on W. parapet of N. abutment of girder opening No. 247 near telegraph post No. 285/10 (Railway bench-mark).	1107·133	1107·886

Main-Line 11. (Erode to Shoranur).

Designation of Bench-marks			Distance from Erode	Description of Bench-marks		Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
37		BM 96 / 58 E	42·6	G.T.S. ○ B.M.	Cut on stone coping of platform 13 feet south of signal staff at Somanur Railway Station.	1119·756	1120·519
38		BM.97 / 58 E	43·0	⩚ B.M.	Cut on S. end of W. parapet of bridge No. 248 near telegraph post No. 286/6 (Railway bench-mark).	1123·189	1123·954
39		BM.98 / 58 E	45·1	⩚ B.M.	Cut on S.W. abutment of girder opening No. 253 near telegraph post No. 288/10 (Railway bench-mark).	1159·246	1160·035
40		BM.99 / 58 E	47·1	⩚ B.M.	Cut on W. parapet of bridge No. 257 near telegraph post No. 290/9 (Railway bench-mark).	1171·453	1172·252
41		BM.100 / 58 E	47·9	G.T.S. ○ B.M.	Cut on platform coping 30 feet S.W. of signal staff at Sulur Railway Station.	1183·121	1183·928
	a/41	BM.101 / 58 E	47·9	G.T.S. □ B.M.	at Sulur Railway Station. Embedded opposite W. corner of station master's house situated at back of station building and 27 yards eastwards therefrom. The letters B.M. are cut on W. corner of station master's house, from which bench-mark is 11 feet; it is 93 feet from B.M. No. 41.	1181·176	1181·983
	b/41	BM.102 / 58 E	49·6	⩚ B.M.	Cut on W. parapet of bridge No. 264 near telegraph post No. 292/11 (Railway bench-mark).	1203·086	1203·908
42		BM.103 / 58 E	51·2	⩚ B.M.	Cut on W. parapet of bridge No. 267 near telegraph post No. 294/16 (Railway bench-mark).	1231·862	1232·704
43		BM.104 / 58 E	52·6	⩚ B.M.	Cut on S.E. cap of E. parapet of bridge No. 271 near telegraph post No. 295/19 (Railway bench-mark).	1230·828	1231·669
44		BM 105 / 58 E	53·3	G.T.S. ○ B.M.	Cut on S.W. end of platform coping opposite signal staff at Singanallur Railway Station.	1241·119	1241·967
45		BM.25 / 58 F	54·9	⩚ B.M.	Cut on N. parapet of bridge No. 281 near telegraph post No. 298/6 (Railway bench-mark).	1271·256	1272·126
46		BM.26 / 58 F	57·8	⩚ B.M.	Cut on W. parapet of bridge No. 296. (Railway bench-mark).	1290·595	1291·480
47		BM.27 / 58 F	58·5	G.T.S. ○ B.M.	Cut on platform coping opposite booking office at Podanur Railway Station.	1306·625	1307·521
	a/47	BM 28 / 58 F	58·9	B.○M.	Cut on top of coping W. of rail of engine turn-table in locomotive work-shop at Podanur Railway Station. (Railway bench-mark).	1303·994	1304·889

Main-Line 11. (Erode to Shoranur).

Designation of Bench-marks		Distance from Erode	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
48	BM.29 / 58 F	59·8	B.OM. Cut on E. parapet of bridge No. 6 near telegraph post No. 303/3 (Railway bench-mark).	1281·482	1282·361
49	BM 30 / 58 F	61·6	B.OM. Cut on S. parapet of bridge No. 12 near telegraph post No. 304/19 (Railway bench-mark).	1215·579	1216·413
50	BM.31 / 58 F	62·1	B.OM. Cut on W. parapet of bridge No. 13 near telegraph post No. 305/9 (Railway bench-mark).	1209·250	1210·080
51	BM 32 / 58 F	63·2	B.OM. Cut on E. parapet of bridge No. 15 near telegraph post No. 306/11 (Railway bench-mark).	1166·803	1167·605
52	BM.1 / 58 B	64·5	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 19 near telegraph post No. 307/17.	1113·586	1114·351
53	BM.2 / 58 B	64·6	G.T.S. ○ B.M. Cut on E. end of passenger platform coping at Madukarai Railway Station.	1115·898	1116·665
a / 53	BM.3 / 58 B	64·8	G.T.S. □ B.M. at Madukarai Railway Station. Embedded opposite centre of eastern wall of permanent way godown opposite goods-shed, 11 feet from letters B.M. cut on wall, 11 and 16 feet respectively from N.E. and S.E. corners of godown and 53 feet south of rails.	1110·427	1111·191
54	BM.4 / 58 B	65·5	B.OM. Cut on S. parapet of bridge No. 24 near telegraph post No. 308/17 (Railway bench-mark).	1101·559	1102·316
55	BM.5 / 58 B	66·9	B OM. Cut on N. parapet of bridge No. 27 near telegraph post No. 310/6 (Railway bench-mark).	1030·265	1030·974
56	BM.6 / 58 B	69·3	B.OM. Cut on W. parapet of bridge No. 34 near telegraph post No. 312/14 (Railway bench-mark).	931·216	931·857
57	BM.7 / 58 B	70·1	G.T.S. ○ B.M. Cut on E. parapet of bridge No. 36 near telegraph post No. 313/11.	875·030	875·633
58	BM 8 / 58 B	70·6	B.OM. Cut on W. parapet of bridge No. 37. (Railway bench-mark).	846·743	847·327
59	BM.9 / 58 B	72·3	B.OM. Cut on E. parapet of bridge No. 39 near telegraph post No. 315/15 (Railway bench-mark).	712·136	712·627

Main-Line 11. (Erode to Shoranur).

Designation of Bench-marks		Distance from Erode	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
60	BM.10 / 58 B	73·2	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Walayar Railway Station.	690·929	691·406
61		75·2	Destroyed.	550·996	551·377
62	BM.11 / 58 B	76·1	B.○M. Cut on N. parapet of bridge No. 49 near telegraph post No. 319/12 (Railway bench-mark).	474·448	474·776
63	BM.12 / 58 B	78·0	○ B.M. Cut on S. abutment of drain No. 56 near telegraph post No. 321/8 (Railway bench-mark).	425·820	426·114
64	BM.13 / 58 B	80·1	B.○M. Cut on E. end of passenger platform coping at Kanyikod Railway Station. (Railway bench-mark).	376·196	376·456
65	BM.14 / 58 B	80·2	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Kanyikod Railway Station.	376·211	376·471
66	BM.15 / 58 B	80·2	G.T.S. □ B.M. at Kanyikod Railway Station. Embedded near latrine at W. end of station house, 12 feet W. of letters B.M. cut on W. wall of latrine, 12 and 13 feet respectively from its N.W. and S.W. corners, and 29 feet S. of platform coping.	376·123	376·383
67		80·7	Destroyed.	371·444	371·700
68	BM.16 / 58 B	82·6	G.T.S. ○ B.M. Cut on N. parapet of bridge No. 76 near telegraph post No. 326/2.	339·351	339·585
69	BM.17 / 58 B	83·7	B.○M. Cut on S. parapet of bridge No. 82 near telegraph post No. 327/3 (Railway bench-mark).	309·547	309·761
70		84·9	Destroyed.	302·169	302·378
71	BM.18 / 58 B	85·8	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 95 across the Ponam river.	292·149	292·351
72	BM.19 / 58 B	88·6	G.T.S. □ B.M. at Palghat Railway Station. Embedded between tank-house and latrine at E. end of station, 9 feet from N.W. corner of tank-house, 22 feet from N.E. corner and 9 feet from wall where letters B.M. are cut, 13 feet from S.E. corner of latrine and 33 feet from water column in front of tank-house.	254·398	254·574
73	BM.20 / 58 B	88·6	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Palghat Railway Station.	258·729	258·908
74	BM.21 / 58 B	88·9	B.○M. Cut on N. parapet of bridge No. 106 near telegraph post No. 332/8 (Railway bench-mark).	251·645	251·819

Main-Line 11. (Erode to Shoranur).

Designation of Bench-marks		Distance from Erode	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
75	BM 22 / 58 B	89·7	B.O.M. Cut on N. parapet of bridge No. 107 near telegraph post No. $\frac{333}{3}$ (Railway bench-mark).	238·439	238·603
76	BM 23 / 58 B	91·4	B.O.M. Cut on W. abutment of girder opening of bridge No. 115 near telegraph post No. $\frac{334}{16}$ (Railway bench-mark).	220·330	220·482
77	BM 24 / 58 B	92·8	B.O.M. Cut on W. abutment of drain No. 122 near telegraph post No. $\frac{336}{5}$ (Railway bench-mark).	215·311	215·460
78	BM.25 / 58 B	94·4	G.T.S. O B.M. Cut on platform coping opposite booking office at Parli Railway Station.	202·923	203·063
79	BM 26 / 58 B	94·5	B.O.M. Cut on S. parapet of bridge No. 133 near telegraph post No. $\frac{337}{19}$ (Railway bench-mark).	197 850	197·987
80	BM 27 / 58 B	96·4	B.O.M. Cut on N. parapet of bridge No. 142 near telegraph post No. $\frac{339}{18}$ (Railway bench-mark).	191·278	191·410
81		98·1	Destroyed.	176·146	176·268
82		99·6	Destroyed.	165·351	165·465
83	BM.28 / 58 B	101·3	B.O.M. Cut on S. parapet of bridge No. 163 near telegraph post No. $\frac{344}{17}$ (Railway bench-mark).	148·558	148·661
84		102·5	Destroyed.	140·228	140·325
85	BM.29 / 58 B	103·4	G.T.S. O B.M. Cut on platform coping opposite booking office at Lakkiti Railway Station.	141·679	141·777
86		105·0	Destroyed.	122·162	122·247
87	BM 30 / 58 B	106·5	B.O.M. Cut on W. parapet of bridge No. 196 near telegraph post No. $\frac{350}{2}$ (Railway bench-mark).	117·452	117·533
88	BM.31 / 58 B	106·7	B.O.M. Cut on N. abutment of open drain No. 198 near telegraph post No. $\frac{350}{5}$.	116·807	116·888
89	BM.32 / 58 B	108·0	B.O.M. Cut on E. end of passenger platform coping at Ottappalam Railway Station. (Railway bench-mark).	115·476	115·556
90	BM.33 / 58 B	108·6	G.T.S. O B.M. Cut on S. parapet of bridge near telegraph post No. $\frac{352}{4}$.	111·115	111·192

Main-Line 11. (Erode to Shoranur).

Designation of Bench-marks		Distance from Erode	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
91	BM.34/58 B	109·9	B.○M. Cut on E. parapet of bridge near telegraph post No. 353/10.	115·218	115·298
92	BM.35/58 B	111·9	B.○M. Cut on S. parapet of bridge near telegraph post No. 355/11 (Railway bench-mark).	112·365	112·443
93	BM.36/58 B	113·1	B.○M. Cut on S. parapet of bridge near telegraph post No. 356/13.	99·179	99·248
94	BM.37/58 B	114·4	B.○M. Cut on S. parapet of bridge 1 chain W. of mile-post No. 358. (Railway bench-mark).	96·733	96·800
95	BM.38/58 B	116·0	G.T.S. □ B.M. at Shoranur Railway Station. Embedded near S.E. corner of tank-house at E. end of station, 5 feet E. of S.E. corner of tank-house where letters B.M. are cut, 21 feet from N.E. corner and 14 feet N. of platform coping.	97·233	97·300

Main-Line 12. (Shoranur to Beypore).

Designation of Bench-marks		Distance from Shoranur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 38 / 58 B	0·0	G.T.S. □ B.M. at Shoranur Railway Station. Embedded near S.E. corner of tank-house at E. end of station, 5 feet E. of S.E. corner of tank-house where letters B.M. are cut, 21 feet from N.E. corner and 14 feet N. of platform coping.	97·233	97·300
2	BM 39 / 58 B	0·1	G.T.S. ○ B.M. Cut on W. end of goods platform, 20 feet W. of timber crane at Shoranur Railway Station.	97·616	97·684
3	BM 40 / 58 B	1·2	B.○M. Cut on W. abutment of girder opening near telegraph post No. 360/15 (Railway bench-mark).	109·829	109·905
4	BM.41 / 58 B	2·3	G.T.S. ○ B.M. Cut on N. parapet over first arch from W. of bridge near telegraph post No. 361/17.	93·356	93·420
5	BM 42 / 58 B	3·5	B.○M. Cut on S. parapet of bridge near telegraph post No. 363/2.	93·405	93·469
6	BM.43 / 58 B	4·6	B.○M Cut on S. parapet of bridge near telegraph post No. 364/4 (Railway bench-mark).	78·859	78·914
7	BM 44 / 58 B	6·2	B.○M. Cut on centre of W. abutment of open bridge near telegraph post No. 365/17.	69·668	69·716
8		7·0	Destroyed.	87·345	87·405
9	BM 45 / 58 B	9·0	B.○M. Cut on centre of S. parapet of bridge near telegraph post No. 368/10 (Railway bench-mark).	64·212	64·256
10	BM 46 / 58 B	10·4	G.T.S. ○ B.M. Cut on cap at E. end of S. parapet of bridge at milestone No. 370.	68·003	68·050
11	BM 47 / 58 B	11·1	G.T.S. ○ B.M. Cut on S. end of E. abutment of open bridge near telegraph post No. 370/15.	65·950	65·996
12	BM.48 / 58 B	12·2	B.○M. Cut on cap at E. end of S. parapet of bridge near telegraph post No. 371/15 (Railway bench-mark).	52·010	52·046
13	BM.49 / 58 B	12·9	B.○M. Cut near N. end of E. abutment of girder opening near telegraph post No. 372/10 (Railway bench-mark).	42·595	42·625
14	BM.50 / 58 B	14·5	B.○M. Cut on centre of W. abutment of open drain near telegraph post No. 374/3.	46·738	46·770

Main-Line 12. (Shoranur to Beypore).

Designation of Bench-marks			Distance from Shoranur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
15		BM.51 / 58 B	15·5	B.○M. Cut on cap at E. end of S. parapet of bridge near telegraph post No. $\frac{375}{4}$ (Railway bench-mark).	50·761	50·796
16		BM.52 / 58 B	17·7	B.○M. Cut on E. end of S. parapet of E. abutment of bridge near telegraph post No. $\frac{377}{7}$ (Railway bench-mark).	38·620	38·647
17		BM.53 / 58 B	18·5	G.T.S. ○ B.M. Cut on platform coping opposite signal staff at Kuttippuram Railway Station.	47·162	47·194
18		BM.54 / 58 B	18·5	G.T.S. □ B.M. at Kuttippuram Railway Station. Embedded at N.E. corner of tank-house at W. end of station, 7 and 18 feet from N.E. and N.W. corners of tank-house, 7 feet from N. wall of same, where letters B.M. are cut, 15 feet S. of nearest rail, and the same distance S.E. of water column opposite N.W. corner of tank-house.	42·575	42·605
	1/18	BM.55 / 58 B	19·8	G.T.S. □ B.M. A at Kuttippuram Hill. Description same as $\frac{2}{18}$ but 70 feet from it, 35 feet W. of centre of road, and 80 feet from pyramidal pillar.	292·234	292·436
	2/18	BM.56 / 58 B	19·8	G.T.S. □ B.M. B at Kuttippuram Hill. Embedded on top of hill, 1 mile N. of Kuttippuram Railway Station, 35 feet E. of centre of road leading from railway station to Kolattur, 198 yards S.W. of a conspicuous banyan tree on continuation of hill, 264 yards N. of a stone-rest on E. margin of road and 48 chains N. of a hut at junction of road with foot-path leading up hill from railway station. To mark the spot a pyramidal pillar of masonry 3 feet square at base and 4½ feet high with its top rounded off, has been built 10 feet E. of bench-mark, its plinth being on same level as bench-mark.	293·629	293·832
19		BM.57 / 58 B	19·0	B.○M. Cut on S. parapet of bridge No. 330 near telegraph post No. $\frac{378}{14}$ (Railway bench-mark).	38·373	38·399
20		BM.58 / 58 B	21·4	G.T.S. ○ B.M. at bridge. Cut on cap at S. end of E. abutment of double girder opening No. 333.	27·133	27·152
21		BM.1 / 49 N	24·1	G.T.S. ○ B.M. Cut on centre of W. abutment of bridge No. 349 near telegraph post No. $\frac{383}{14}$.	25·804	25·822
22		BM.2 / 49 N	25·7	B.○M. Cut on cap at W. end of S. parapet of bridge No. 354 near telegraph post No. $\frac{385}{5}$.	23·954	23·970
23		BM.3 / 49 N	26·0	G.T.S. ○ B.M. Cut on centre of S. parapet of E. abutment of bridge No. 356 near telegraph post No. $\frac{385}{10}$.	22·348	22·363

Main-Line 12. (Shoranur to Beypore).

Designation of Bench-marks		Distance from Shoranur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
24	BM 4 / 49 N	26·7	G.T.S. ○ B.M. Cut on W. end of S. parapet of E. abutment of bridge near telegraph post No. 386/6.	18·080	18·092
25	BM.5 / 49 N	27·9	G.T.S. ○ B.M. Cut on passenger platform coping opposite goods office at Tirur Railway Station.	16·658	16·670
26	BM.6 / 49 N	27·9	B ○ M. Cut on W. end of passenger platform coping at Tirur Railway Station. (Railway bench-mark).	16·526	16·538
27	BM.7 / 49 N	27·9	G.T.S. □ B.M. at Tirur Railway Station. Embedded near N. column of new water-tank at W. end of station, 7 and 24 feet from N. and W. columns of water-tank, 7 feet from letters B M. cut on W. face of former, and 18 feet S. of nearest rail.	11·497	11·505
28	BM.8 / 49 N	29·7	B.○M. Cut on centre of W. parapet of bridge No. 370 near telegraph post No. 389/6 (Railway bench-mark).	32·715	32·738
29	BM 9 / 49 N	31·7	B.○M. Cut on centre of W. parapet of bridge No. 378 between telegraph posts Nos. 391/5 and 391/6 (Railway bench-mark).	25·697	25·715
30	BM 10 / 49 N	32·8	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Tanur Railway Station.	25·844	25·862
31	BM 11 / 49 N	32·9	G T S. ◔ B.M. Cut on N. end of platform coping at Tanur Railway Station.	25·356	25·373
32	BM.1 / 49 M	34·5	B.○M. Cut on centre of W. parapet of bridge No. 390 near telegraph post No. 394/3 (Railway bench-mark).	30·890	30·911
33	BM 2 / 49 M	36·2	B.○M. Cut on centre of W. parapet of bridge No. 395 near telegraph post No. 395/15 (Railway bench-mark).	33·511	33·534
34	BM.3 / 49 M	37·8	B.○M at Parpanangadi Railway Station. Cut on passenger platform coping opposite latrine at S. end of station building.	37·550	37·576
35	BM.4 / 49 M	37·8	G T S. □ B M. at Parpanangadi Railway Station. Embedded near N.E. corner of tank-house at N. end of station platform, 11 feet from N. wall of tank-house where letters B.M. are cut, 12 and 18 feet from N.E. and N.W. corners of same, 8 feet W. of telegraph post No. 397/9 and 26 feet W. of the nearest rail.	30·589	30·610
36	BM.5 / 49 M	38·5	G.T.S. ○ B.M. Cut on centre of N. abutment of skew bridge No. 399 near telegraph post No. 398/3.	31·119	31·140

Main-Line 12. (Shoranur to Beypore).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Shoranur	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
37	BM 6 / 49 M	40·4	B.○M. Cut on centre of W. parapet of bridge No. 403 near telegraph post No. 400/2 (Railway bench-mark).	25·763	25·781
38	BM.7 / 49 M	41·4	B.○M. Cut on centre of W. parapet of bridge No. 406 near telegraph post No. 401/2 (Railway bench-mark).	18·296	18·308
39	BM.8 / 49 M	42·8	G.T.S. ○ B.M. Cut on E. parapet of bridge No. 408 near telegraph post No. 402/9.	10·769	10·776
1/39	BM.9 / 49 M	46·0	G.T.S. ○ B.M. Cut on N.E. abutment of bridge near telegraph post No. 405/15.	12·898	12·907
2/39	BM.10 / 49 M	47·4	Bk. RL. BF = 29 ○ RL. TF = 5 L = 21 Cut on a stone slab let into S.W. abutment of bridge near telegraph post No. 407/3 about 15 chains N. of Ferok Railway Station.	14·917	14·927
3/39	BM.11 / 49 M	48·6	G.T.S. ○ B.M. Cut on S. cap of bridge No. 435 between telegraph posts Nos. 408/7 and 408/8.	13·755	13·764
4/39	BM.12 / 49 M	49·1	⊕ Cut on N.W. abutment of bridge No. 437 between telegraph posts Nos. 408/17 and 408/18.	11·680	11·688
5/39	BM.13 / 49 M	50·7	B.○M. Cut on a stone block fixed in N.W. abutment of bridge No. 443 between telegraph posts Nos. 410/8 and 410/9.	29·351	29·371
6/39	BM.14 / 49 M	52·5	W.L. RL. BF = 57 RL. TF = 9 S = 2 A = 15 C = 21 G = 4 e = 6 Cut on a stone slab let into W. end of N. abutment recess of bridge across Kallai backwater near telegraph post No. 412/5.	7·866	7·871
7/39	BM.15 / 49 M	53·3	M.↑R. ○ B.M. Cut on platform pavement at Calicut Railway Station near S. wall of building close to station master's office and under bell.	17·498	17·510
7a/39	BM.16 / 49 M	54·8	B.M. ∧ M.S. 1887 Cut on an iron plate loosely rivetted in verandah of port and shipping office, Calicut (Marine Survey bench-mark).	14·787	14·797

Main-Line 12. (Shoranur to Beypore).

Designation of Bench-marks		Distance from Shoranur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
8/39	BM.17/49 M	54·8	G.T.S. Standard Bench Mark 1908 at Calicut. Situated in compound of sea custom office adjoining port and shipping office, enclosed in a railed-off space 11 feet square. The following are the distances and bearings of surrounding objects from the bench-mark:—S.E. corner of custom house 97 feet, 272°; N.E. corner of same 141 feet, 304°; S.W. corner of yard 159 feet, 227° 45′; S.E. corner of yard 88 feet, 128° 45′.	13·874	13·883
40		43·6	Destroyed.	12·230	12·238
41		45·1	Destroyed.	17·018	17·030
42		45·3	Destroyed.	11·955	11·963
43		46·6	Destroyed.	14·402	14·412
44		46·6	Destroyed.	14·337	14·347
45	BM.18/49 M	47·2	G.T.S. □ B.M. C at Beypore Travellers' Bungalow. Embedded in flooring of front verandah. *Note.*—The original value (orthometric) of this B.M. above M.S.L. was 23·062 feet, but by recent levelling in season 1909-10, the height was found to be 23·226 feet; the difference 0·164 shows that the B.M has been disturbed.	23·046*	23·062*
46	BM.19/49 M	47·3	G.T.S. □ B.M. B at Beypore Tidal Observatory Embedded in compound of travellers' bungalow immediately opposite front door.	23·683	23·699
47	BM 20/49 M	47·3	G.T.S. □ B.M. A at Beypore Tidal Observatory. Embedded about 100 feet E of front door of custom house. *Note.*—The original value (orthometric) of this B.M. above M.S.L. was 14·324 feet, but by recent levelling in season 1909-10, the height was found to be 14·407 feet; the difference 0·083 shows that the B.M. has been disturbed.	14·314*	14·324*

* These values of height are no longer reliable.

Main-Line 13. (Shoranur to Cochin).

Designation of Bench-marks			Distance from Shoranur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM 38 / 58 B	0·0	G.T.S. □ B.M. at Shoranur Railway Station. Embedded near S.E. corner of tank-house at E. end of station, 5 feet E. of S.E. corner of tank-house where letters B.M. are cut, 21 feet from N.E. corner and 14 feet N. of platform coping.	97·233	97·300
2		BM.59 / 58 B	0·4	G.T.S. ○ B.M. Cut on N. end of W. parapet of bridge near telegraph post No. 314.	82·075	82·132
3		BM.60 / 58 B	0·5	G.T.S. ○ B.M. Cut on top of buffer-stone at N. end of W. parapet of girder bridge over the Ponnani river.	93·463	93·527
4		BM.61 / 58 B	0·7	G.T.S. ○ B.M. Cut on top of buffer-stone at S. end of W. parapet of girder bridge over the Ponnani river.	94·240	94·305
5		BM.62 / 58 B	1·3	Mile-stone No. 1 from Shoranur and No. 19 from Trichur.	150·639	150·744
6		BM.63 / 58 B	2·3	Mile-stone No. 2 from Shoranur and No. 18 from Trichur.	140·826	140·924
7		BM.64 / 58 B	4·3	Mile-stone No. 4 from Shoranur and No. 16 from Trichur.	158·125	158·235
8		BM 65 / 58 B	6·3	Mile-stone No. 6 from Shoranur and No. 14 from Trichur.	149·755	149·859
9		BM.66 / 58 B	8·3	Mile-stone No. 8 from Shoranur and No. 12 from Trichur.	88·946	89·008
	a / 9	BM 67 / 58 B	8·7	G.T.S. □ B.M. at Vadakkancheri. Embeddednear N.E. corner of enclosure wall of tahsildar's kachahri, 12 feet from its N.E. corner, also 6¾ feet from N. wall of enclosure, 44 feet from E. pillar of N. entrance, 127 feet from S.E. corner of Ganpati's temple and 119 feet from road from Shoranur to Trichur. The letters B.M. have been cut on N. wall of enclosure facing bench-mark.	92·601	92·665
10		BM.68 / 58 B	9·3	Mile-stone No. 9 from Shoranur and No. 11 from Trichur.	126·651	126·740
11		BM.69 / 58 B	10·3	Mile-stone No. 10 from Shoranur and No. 10 from Trichur.	132·917	133·010
12		BM 70 / 58 B	11·3	Mile-stone No. 11 from Shoranur and No. 9 from Trichur.	150·418	150·523
13		BM.71 / 58 B	13·3	Mile-stone No. 7 from Trichur and No. 13 from Shoranur.	79·655	79·711
14		BM.72 / 58 B	14·3	Mile-stone No. 6 from Trichur and No. 14 from Shoranur.	77·147	77·201
15		BM.73 / 58 B	15·3	Mile-stone No. 5 from Trichur and No. 15 from Shoranur.	73·113	73·164

Main-Line 13. (Shoranur to Cochin).

Designation of Bench-marks		Distance from Shoranur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
16	BM.74 / 58 B	16·3	B.○M. Cut on N. end of E. parapet of bridge near telegraph post No. 65.	49·727	49·762
17	BM.75 / 58 B	17·3	Mile-stone No. 3 from Trichur and No. 17 from Shoranur.	29·831	29·852
18	BM.76 / 58 B	18·3	Mile-stone No. 2 from Trichur and No. 18 from Shoranur.	19·145	19·158
a / 18	BM.77 / 58 B	20·5	G.T.S. □ B.M. at Trichur. Embedded opposite E. wall of bungalow, between two windows, 19¼ feet from N.E. and 20½ feet from S.E. corners of bungalow, 40¾ feet from N.W. corner of stable and 7¾ feet from E wall of bungalow on which letters B.M. have been cut, and about 6 inches below ground level. The bungalow is about 2 chains W. of road from Trichur to Karupadanna.	28·739	28·759
b / 18	BM.78 / 58 B	20·5	G.T.S. ○ B.M. at Trichur. Cut on S.W. corner of northern verandah of travellers' bungalow.	31·154	31·176
19	BM 79 / 58 B	21·4	Mile-stone No. 1 from Trichur.	54·073	54·111
20	BM 80 / 58 B	22·4	Mile-stone No. 2 from Trichur.	40·263	40·291
21	BM 81 / 58 B	23·4	Mile-stone No. 3 from Trichur.	46·054	46·086
22	BM 82 / 58 B	24·4	Mile-stone No. 4 from Trichur.	76·452	76·505
23	BM.83 / 58 B	25·4	Mile-stone No. 5 from Trichur.	56·501	56·541
24	BM 84 / 58 B	26·7	G.T.S. □ B.M. at Uraghum. Embedded E. of police station, 39¼ feet from S.E. corner, 4½ feet from well on which letters B.M. have been cut, 40 feet from telegraph post No. 612, 500 feet from mile-stone No. 8 from Trichur and 33 feet from road from Trichur to Karupadanna.	25·317	25·335
1 / 24	BM 85 / 58 B	27·7	G.T.S. ○ B.M. Cut on rock 157 feet S. of Elamkunnu G. T. Survey station.	243·308	243·479
2 / 24	BM.86 / 58 B	27·7	On top of protecting mound of earth of Elamkunnu h.s., lat. 10° 25′ 54″·04, long. 76° 13′ 32″·56. A station of Malabar Coast Secondary Series. (For full description *see* Synoptical Volume Great Arc Meridional Series—Section 8° to 18°).	262·698	262·883
25	BM.87 / 58 B	26·8	Mile-stone No. 8 from Trichur.	28·038	28·058
26	BM.88 / 58 B	27·9	Mile-stone No. 9 from Trichur.	10·929	10·937
27	BM.89 / 58 B	28·8	Mile-stone No. 10 from Trichur.	18·728	18·741

Main-Line 13. (Shoranur to Cochin).

Designation of Bench-marks			Distance from Shoranur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
28		BM.90 / 58 B	29·8	Mile-stone No. 11 from Trichur.	39·904	39·932
29		BM.91 / 58 B	30·9	Mile-stone No. 12 from Trichur.	38·924	38·951
30		BM.92 / 58 B	31·8	Mile-stone No. 13 from Trichur.	29·003	29·023
	a / 30	BM.93 / 58 B	32·6	G.T.S. ○ B.M. at Irinjalakuda village. Cut on third step from bottom at entrance to police station.	46·801	46·834
	b / 30	BM.94 / 58 B	32·7	G.T.S. □ B.M. at Irinjalakuda Police Station. Embedded in a block of masonry, 3 feet square and 2½ feet deep: situated near angle formed by eastern and southern wings of police station, 14½ feet from S.E. corner of E. wing, 10½ feet from S.E. corner of S. wing, and 7¾ feet from S. wall of E. wing on which letters B.M. have been cut; about 3 inches below ground level. The police station is about 1 chain E. of road from Trichur to Karupadanna.	46·054	46·087
31		BM.95 / 58 B	33·8	Mile-stone No. 15 from Trichur.	25·424	25·442
32		BM.96 / 58 B	33·9	G.T.S. ○ B.M. Cut on kerb-stone, at N. end of E. parapet of causeway opposite telegraph post No. 499.	18·981	18·994
33		BM.97 / 58 B	34·8	Mile-stone No. 16 from Trichur.	21·079	21·094
34		BM.98 / 58 B	35·8	Mile-stone No. 17 from Trichur.	18·156	18·169
35		BM.99 / 58 B	36·8	Mile-stone No. 18 from Trichur.	17·623	17·636
36		BM.100 / 58 B	37·8	Mile-stone No. 19 from Trichur.	25·782	25·800
37		BM.101 / 58 B	38·8	Mile-stone No. 20 from Trichur.	10·463	10·470
38		BM.102 / 58 B	39·1	G.T.S. □ B.M. at Karupadanna. Embedded E. of police station, 21¾ and 9½ feet from N.E. and S.E. corners, and 6¾ feet from E. wall on which letters B.M. have been cut. The police station is about 2 chains N.E. of a ghát, and 20 chains N. of it is a travellers' bungalow, situated on a hill about 100 feet above plain.	8·417	8·423
	a / 38	BM.103 / 58 B	39·2	G.T.S. ○ B.M. at Karupadanna. Cut on S.E. corner of first step from bottom at entrance to police station.	9·454	9·461
39		BM.104 / 58 B	42·3	G.T.S. ○ B.M. at Kodungallur. Cut on flag stone at entrance to magistrate's court.	14·825	14·836
40		BM.105 / 58 B	43·5	Root of tree. South of Kodungallur village.	14·292	14·302

Main-Line 13. (Shoranur to Cochin).

Designation of Bench-marks		Distance from Shoranur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1/40	BM 106 / 58 B	43·7	G.T.S. □ B.M. at Cheramanpalli Masjid, near Arakulam tank. Test bench-mark No. 1 for Cochin Tidal Station. Embedded in a block of masonry 3 feet square and 4 feet deep, situated within angle formed by N and E. wings of masjid, 13 feet from N.E. corner of E. wing and 14½ feet from N.E. corner of N wing, 6¼ feet S. of wall of a small well and 6½ feet from N. wall of E. wing on which letters B.M. have been cut. The masjid lies about 13 chains E. of junction of main road from Kodungallur to Kuriyapilli Kaduvu (ghat) and of foot-path from Kodungallur to Azhikodu ghat, and 1 mile N. of Kodungallur.	14·310	14·320
41	BM 107 / 58 B	44·7	G.T.S. □ B.M. at Pandoli Dharmshala. Test bench-mark No. 2 for Cochin Tidal Station. Embedded N. of eastern of two buildings forming the Dharmshala, 8¾ and 11¾ feet from N W. and N E. corners of verandah, and 8¼ feet from N. wall of building on which letters B M. have been cut, 87 feet from E door of W. building and 2 chains W. of Kadikulam tank, in Mettala Desam village. *Note.*—A pyramidal pillar of masonry, 3 feet square at base, and 5 feet high, has been built 8 feet N. of bench-mark, its plinth being on same level with bench-mark.	11·347	11·355
42	BM 108 / 58 B	45·6	G.T.S. ○ B.M. Cut on 3rd step from bottom on W. side of Azhikodu ghat over bridge on postal runner's road.	3·743	3·746
a/42	BM.109 / 58 B	46·6	G.T.S. □ B.M. at Puttanpalli Masjid. Embedded in a block of masonry 3 feet square, and 4 feet deep, 17 feet from N.E corner of masjid and 3½ feet E. from wall of small well on which letters B.M. have been cut. It is situated about 2 chains W of road from Beypore to Cochin, and ¼ mile N of Azhikodu ghat.	6·011	6·015
43	BM.110 / 58 B	46·6	G.T.S. ○ B.M. Cut on stone-rest across a masonry well near E. entrance to Puttanpalli Masjid at Azhikodu village.	8·493	8·499
44	BM.111 / 58 B	47·1	G.T.S. ○ B M Cut on top of boundary stone on W. side of Azhikodu ghat, on N. bank of creek.	5·516	5·520
a/44	BM 112 / 58 B	49·8	G.T.S. ○ B.M. Cut on top of boundary stone on E. side of Monampu ghat, on S. bank of creek.	4·574	4·577
b/44	BM.113 / 58 B	49·7	G.T.S. ○ B.M. Cut near N.W. corner of plinth of Roman Catholic chapel at Monampu village, about 9 feet N. of W. or main entrance.	5·574	5·578
45	BM.114 / 58 B	50·5	Root of tree at Monampu village.	8·552	8·558
1/45	BM 115 / 58 B	50·6	G.T.S. ○ B.M. at Monampu. Cut on S. end of sill at entrance to old ruined Portuguese fort.	7·275	7·280
2/45	BM.116 / 58 B	50·6	G.T.S. ○ B.M. at Monampu. Cut on a cylindrical stone about 3 feet in diameter, and embedded in centre of a ruined octagonal Portuguese fort which lies between villages of Monampu and Pallipuram, 80 yards E. of main road to Cochin and 20 chains W. of W. bank of creek from Kodungallur to Cochin.	14·449	14·459
⋮					

Main-Line 13. (Shoranur to Cochin).

Designation of Bench-marks		Distance from Shoranur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
46	BM.117 / 58 B	55·3	G.T.S. ○ B.M. at Etavanakatu. Cut on N. end of second step from bottom at E. face of first large shop S. of canal and W. of main road.	6·449	6·453
47	BM 118 / 58 B	57·5	G.T.S. ○ B.M. Cut on middle step of circular masonry basement around tree N.W. of Nayarampalam temple: the basement is northern of two, and locally known as Althare.	7·759	7·765
48	BM 119 / 58 B	59·1	G.T.S. □ B.M. at Narakkal village. Embedded flush with floor in E. verandah of travellers' bungalow, between two doors, and 2 feet from E. wall on which letters B.M. are cut.	7·886	7·892
a / 48	BM.1 / 58 C	61·5	G.T.S. ○ B.M. at Malipuram village. Cut on N.W. corner of second terrace of plinth of flag-staff.	8·907	8·913
b / 48	BM.2 / 58 C	64·9	G.T.S. ○ B.M. at Vaipin Ghat. Cut on second terrace, N. edge of octagonal plinth of flag-staff, about 50 yards S. of Roman Catholic church.	6·741	6·746
49	BM.3 / 58 C	65·0	↑ B.M. at Vaipin Island. Marine Survey bench-mark, cut on stone groyne 80 yards W. of an old crane, and 12 chains 70 links from lamp-post on south coast of island.	4·914	4·918
50	BM.4 / 58 C	65·7	G.T.S. □ B.M. B. at Cochin Tidal Station. Engraved on surface of an octagonal block of stone 2 feet in diameter and 3 feet in depth sunk in ground at N.W. corner of Marine Office compound. The surface of block is 3 inches above ground level.	5·428	5·432
51	BM.5 / 58 C	65·7	G.T.S. □ B.M. A. at Cochin Tidal Station. Cut on a granite stone 6 feet long and 2 feet 6 inches wide, embedded in centre of verandah of Marine Office leading into master attendant's office room, and 50 yards S. of Tidal Observatory. This is the reference bench-mark for Cochin Tidal Observatory.	6·568	6·573

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation *	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 1 / 57 E	0·0	G.T.S. □ B.M. at Gooty Railway Station. Embedded in a solid block of masonry 4 feet E of E. wall of goods loading shed, about 6 inches below ground level. The following are distances and bearings of surrounding objects from bench-mark:—S.W. corner of goods loading shed 6 feet, 133° 30′; N.W. corner of same 32 feet, 23° 30′; telegraph post No. 257/7 173 feet, 341° 20′. S.E. corner of engine-shed opposite station house bears 294° 50′ from bench-mark.	1199·031	1199·648
1/1	BM 2 / 57 E	2·0	G.T.S. ○ B.M. Cut on lowest step at W. entrance to Munro Civil Dispensary, Gooty.	1177·955	1178·562
1a/1	BM 3 / 57 E	2·1	G.T.S. ○ B.M. Cut on lowest step on S. side of a small doorway of main entrance to kachahri, Gooty.	1180·423	1181·031
1b/1	BM 4 / 57 E	2·3	G.T.S. ○ B.M. Cut on first step of verandah opposite S. entrance to Chhattram at Gooty.	1191·475	1192·089
2/1	BM 5 / 57 E	2·8	⊙ at Gooty. Cut on summit of a pyramidal stone of grey granite embedded on E. margin of Gooty-Bellary road, 19 chains S. of junction with road from Gooty to Bangalore.	1167·382	1167·983
a/1	BM 6 / 57 E	4·5	On top of rectangular protecting pillar of Gooty G.T. Survey Station, lat. 15° 6′ 46″·33, long 77° 39′ 5″·69. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	2104·678	2105·762
2	BM.7 / 57 E	0·8	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 816 near telegraph post No. 256/10.	1225·638	1226·269
3	BM.8 / 57 E	2·7	G.T.S. ○ B.M. Cut on S. abutment of girder bridge No. 811 near telegraph post No. 254/12.	1193·733	1194·348
4	BM.9 / 57 E	4·2	G.T.S. ○ B.M. ↑ Cut on S. abutment of girder bridge No. 809 near telegraph post No. 253/3.	1153·746	1154·341
5	BM.10 / 57 E	5·3	G.T.S. ○ B.M. Cut on S. abutment of bridge No. 805 near telegraph post No. 252/1.	1117·767	1118·344
6	BM.11 / 57 E	7·3	G.T.S. ○ B.M. Cut on platform coping opposite booking office at Jakkalacheruvu Railway Station.	1090·744	1091·307
7	BM.12 / 57 E	8·5	G.T.S. ○ B.M. Cut on E. abutment of girder bridge No. 795 near telegraph post No. 248/15.	1050·967	1051·510
8	BM.13 / 57 E	10·0	G.T.S. ○ B.M. Cut on W. abutment of culvert No. 792 near telegraph post No. 247/6.	1015·902	1016·427

* Deduced from the most recent levelling revision.

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
9	BM.14 / 57 E	12·9	G.T.S. ○ B.M.	Cut on S.E. cap of girder bridge No. 782 near telegraph post No. 244/9.	973·917	974·423
10	BM.15 / 57 E	14·5	G.T.S. □ B.M.	at Rayalcheruvu Railway Station. Embedded in a solid block of masonry 6 inches below level of station platform within wooden fence. The following are distances and bearings of surrounding objects from bench-mark:—N.W. corner of gentlemen's lavatory 7 feet, 78° 30′; S.W. corner of same 11 feet, 199°. The letters B.M. have been cut on wall facing bench-mark.	940·557	941·045
11	BM.16 / 57 E	14·5	G.T.S. ○ B.M.	Cut on platform coping in front of booking office at Rayalcheruvu Railway Station.	941·313	941·801
12	BM.17 / 57 E	15·6	G.T.S. ○ B.M.	Cut on W. cap of bridge No. 775 near telegraph post No. 241/15.	915·895	916·371
13	BM.18 / 57 E	16·6	G.T.S. ○ B.M.	Cut on S.W. cap of bridge No. 771 near telegraph post No. 240/13.	894·911	895·377
14	BM.1 / 57 F	19·7	G.T.S. ○ B.M.	Cut on N.E. cap of drain No. 756 near telegraph post No. 237/10.	853·822	854·269
15	BM.2 / 57 F	20·1	G.T.S. ○ B.M.	Cut on E. abutment of culvert No. 246 near telegraph post No. 237/4.	853·139	853·585
16	BM 3 / 57 F	21·9	G.T.S. ○ B.M.	Cut on W. end of platform coping at Penneru Railway Station.	846·096	846·539
17	BM.4 / 57 F	23·6	G.T.S. ○ B.M.	Cut on E. return wall of N. abutment of iron bridge across Penneru river.	814·096	814·523
18	BM.5 / 57 F	24·8	G.T.S. ○ B.M.	Cut on N.W. cap of girder bridge No. 747 near telegraph post No. 232/10.	809·768	810·193
19	BM.6 / 57 F	25·2	G.T.S. ○ B.M.	Cut on S.E. cap of girder bridge No. 743 near telegraph post No. 232/3.	807·507	807·931
a/19	BM.7 / 57 F	26·0	G.T.S. ○ B.M.	Cut on S. parapet of bridge No. 739 near telegraph post No. 231/6.	799·147	799·567
20	BM 8 / 57 F	27·7	G.T.S ○ B.M.	Cut on S.W. cap of bridge No. 735 near telegraph post No. 229/11.	783·170	783·582

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
21	BM.9 / 57 F	28·9	G.T.S. ○ B.M. Cut on S. cap of E. abutment of bridge near telegraph post No. 228/7.	773·834	774·241
a/21	BM 10 / 57 F	29·5	G.T.S. ○ B.M. Cut on platform coping in front of telegraph office at Tadpatri Railway Station.	783·087	783·499
b/21	BM 11 / 57 F	29·5	G.T.S. ○ B.M. Cut on verandah flooring 2 feet W. of main exit at Tadpatri Railway Station.	783·349	783·761
22	BM.12 / 57 F	31·0	G.T.S. ○ B.M. Cut on S.E. cap of girder bridge No. 725 near telegraph post No. 226/8.	769·505	769·911
23	BM 1 / 57 J	31·8	G T S ○ B.M. Cut on S.E. cap of bridge No. 723 near telegraph post No. 225/9.	762·638	763·040
a/23	BM 2 / 57 J	33·3	G.T.S. ○ B.M. Cut on S.E. cap of bridge No 720 near telegraph post No. 224/2.	744·354	744·746
24	BM 3 / 57 J	35·0	G T S. ○ B.M. Cut on S.E. cap of bridge No 715 near telegraph post No. 222/6.	737·647	738·037
25	BM.4 / 57 J	36·4	G.T.S. ○ B.M. Cut on N. parapet of bridge No. 713 near mile-stone No. 221.	734·422	734·810
26	BM.5 / 57 J	36·8	G T S. ○ B.M. Cut on S. cap of bridge No. 712 near telegraph post No. 220/8.	727·551	727·936
a/26	BM.6 / 57 J	37·6	G.T S. ○ B.M. Cut on platform coping opposite booking office at Vanganur Railway Station.	725·294	725·678
27	BM 7 / 57 J	38·5	G.T S. ○ B.M. Cut on S. parapet of culvert No. 706 near telegraph post No. 218/15.	732·205	732·592
28	BM.8 / 57 J	39·8	G.T.S. ○ B.M. Cut on S. cap of bridge No. 700 near telegraph post No. 217/9.	735·601	735·991
29	BM 9 / 57 J	41·2	G T.S. ○ B.M. Cut on S.E. cap of girder bridge No. 697 near telegraph post No. 216/3.	715·953	716·332
30	BM.10 / 57 J	42·3	G.T.S. ○ B.M. Cut on S. cap of girder bridge No. 695 near telegraph post No. 215/2.	707·391	707·766

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
31	BM.11 / 57 J	44·1	G.T.S. ○ B.M. Cut on S.W. parapet of bridge No. 691 near telegraph post No. 213/4.	699·441	699·812
a/31	BM.12 / 57 J	45·6	G.T.S. ○ B.M. Cut on S.E. cap of abutment of the iron bridge across Chitravati river.	699·603	699·974
32	BM.13 / 57 J	46·2	G.T.S. ○ B.M. Cut on S.E. cap of bridge No. 683 near telegraph post No. 211/6.	707·579	707·956
a/32	BM.14 / 57 J	46·9	G.T.S. □ B.M. at Kondapuram Railway Station. Embedded in a solid block of masonry 1 foot below ground on S. side of steps to station well and 8 links from it. The following are distances and bearings of surrounding objects from bench-mark:—centre of well 17 feet, 329°; S. corner of tank-house 57 feet, 289°; E. corner of same 59 feet, 311°; S.W. corner of railway station 240 feet, 122°. The letters B.M. have been cut on S. side of well facing bench-mark.	718·288	718·670
33	BM.15 / 57 J	47·0	G.T.S. ○ B.M. Cut on platform coping opposite 3rd class waiting room at Kondapuram Railway Station.	721·341	721·725
34	BM.16 / 57 J	47·8	G.T.S. ○ B.M. Cut on S.W. cap of bridge No. 678 near telegraph post No. 209/12.	707·676	708·053
35	BM.17 / 57 J	48·4	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 677 between telegraph posts Nos. 209/2 and 209/1 (Railway bench-mark).	698·638	699·011
36	BM.18 / 57 J	49·4	G.T.S. ○ B.M. Cut on S. parapet of drain No. 673 near telegraph post No. 208/1.	686·661	687·027
37	BM.19 / 57 J	50·7	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 670 between telegraph posts Nos. 206/12 and 206/11.	684·906	685·271
a/37	BM.20 / 57 J	52·1	G.T.S. ○ B.M. Cut on N.E. cap of girder bridge No. 665 near telegraph post No. 205/7.	696·166	696·537
b/37	BM.21 / 57 J	52·6	G.T.S. ○ B.M. Cut on S.E. corner of flooring of waiting hall at Mangapatnam Railway Station.	701·194	701·568
38	BM.22 / 57 J	53·2	G.T.S. ○ B.M. Cut on S.W. parapet of bridge No. 661 near telegraph post No. 204/5.	703·902	704·278
39	BM.23 / 57 J	53·8	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 658 near telegraph post No. 203/11.	718·174	718·557

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
40	BM.24 / 57 J	54·5	G.T.S. ○ B.M. Cut on S.W. parapet of bridge No. 655 near telegraph post No. 202/15.	739·464	739·859
a/40	BM.25 / 57 J	56·0	G.T.S. ○ B.M. Cut on N.E. cap of bridge No. 650 near telegraph post No. 201/7.	723·385	723·771
41	BM.26 / 57 J	57·4	G.T.S. ○ B.M. Cut on S.W. return wall of girder bridge No. 648 near telegraph post No. 200/1.	694·415	694·786
42	BM 27 / 57 J	58·5	G.T.S. ○ B.M. Cut on S. abutment of bridge No. 644 between telegraph posts Nos. 198/15 and 198/14.	672·844	673·204
43	BM.28 / 57 J	59·9	G.T.S. ○ B.M. Cut on N. abutment of bridge No. 640 near telegraph post No. 197/9.	648·866	649·213
44	BM.29 / 57 J	61·0	G.T.S. ○ B.M. Cut on S. abutment of bridge No. 638 near telegraph post No. 196/8.	626·245	626·581
a/44	BM 30 / 57 J	61·7	G.T.S. □ B.M. at Muddanuru Railway Station. Embedded in a solid block of masonry 1 foot below ground between gentlemen's lavatory and assistant station master's quarters and 5 feet in a right line from E. wall of latter. The following are distances and bearings of surrounding objects from bench-mark:—N.E. corner of assistant station master's quarters 10 feet, 340°; S.E. corner of same building 11 feet; S.W. corner of lavatory 20 feet. The letters B.M. have been cut on E. wall of the former facing bench-mark.	617·219	617·550
45	BM.31 / 57 J	61·7	G.T.S. ○ B.M. Cut on platform coping in front of 3rd class passengers' waiting room at Muddanuru Railway Station.	618·553	618·885
46	BM 32 / 57 J	63·2	G.T.S. ○ B.M. Cut on S. abutment of bridge No. 629 near telegraph post No. 194/5.	601·791	602·114
47	BM 33 / 57 J	64·1	B.○M. Cut on top of a stone pillar embedded 2 chains N.E. of railway line near telegraph post No. 193/5.	584·953	585·267
48	BM 34 / 57 J	66·2	G.T.S. ○ B.M. Cut on S. abutment of drain No. 623 near telegraph post No. 191/6.	582·715	583·028
49	BM 35 / 57 J	67·5	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 620 near telegraph post No. 189/18.	571·501	571·808

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks			Distance from Gooty	Description of Bench-marks		Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
50		BM.36 / 57 J	69·6	G.T.S. ○ B.M.	Cut on E. end of S. abutment of bridge No. 619 between telegraph posts Nos. 187/17 and 187/16.	550·367	550·663
51		BM.37 / 57 J	71·0	G.T.S. ○ B.M.	Cut on E. end of S. abutment of bridge No. 616 near telegraph post No. 186/9.	543·204	543·496
	a/51	BM.38 / 57 J	71·6	G.T.S. □ B.M.	at Yerraguntla Railway Station. Embedded in a solid block of masonry about 6 inches below ground opposite E. wall of goods-shed west of station. The following are distances and bearings of surrounding objects from bench-mark:—N.E. corner of goods-shed 14 feet, 1° 40′; S.E. corner of same 22 feet, 214° 15′; S.W. corner of station house 113°10′. The letters B.M. have been cut on E. wall of goods-shed facing bench-mark.	543·379	543·671
52		BM.39 / 57 J	72·6	G.T.S. ○ B.M.	Cut on S.W. abutment of drain No. 612 between telegraph posts Nos. 184/14 and 184/13.	540·627	540·919
53		BM.40 / 57 J	74·0	G.T.S. ○ B.M.	Cut on S.W. abutment of drain No. 608 near telegraph post No. 183/8.	515·843	516·121
54		BM.41 / 57 J	75·4	G.T.S. ○ B.M.	Cut on S.E. abutment of bridge No. 604 between telegraph posts Nos. 182/3 and 182/2.	490·990	491·255
55		BM.42 / 57 J	77·4	G.T.S. ○ B.M.	Cut on W. end of N. abutment of bridge No. 601 across Yerupad Wanka river near telegraph post No. 180/1.	474·142	474·398
56		BM.43 / 57 J	78·4	G.T.S. ○ B.M.	Cut on S. end of E. abutment of girder bridge No. 598 near telegraph post No. 179/1.	469·517	469·771
57		BM.44 / 57 J	79·4	G.T.S. ○ B.M.	Cut on S.E. cap of girder bridge No. 592 near mile-stone No. 178.	466·087	466·339
	a/57	BM.45 / 57 J	80·4	G.T.S. ○ B.M.	Cut on S. parapet of bridge No. 590 near telegraph post No. 177/1.	466·076	466·328
58		BM.46 / 57 J	81·2	□	Cut on a stone pillar embedded in N.W. end of platform of Kamalapuram Railway Station (Railway bench-mark).	462·271	462·521

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/58	BM.47/57 J	81·3	G.T.S. □ B.M. at Kamalapuram Railway Station. Embedded in a solid block of masonry about 6 inches below ground opposite W. wall of tank-house, N.W. of station and 5 feet in a right line from same. The following are distances and bearings of surrounding objects from bench-mark:—S.W. corner of tank-house 7 feet, 155° 15′; N.W. corner of same 18 feet; N.W. corner of tank-house extension 42 feet, 30° 40′; S.E. corner of assistant station master's house 146 feet, 332° 40′. The letters B.M. have been cut on wall of tank-house facing bench-mark.	452·889	453·134
b/58	BM.48/57 J	81·3	G.T.S. ○ B.M. Cut on platform coping at Kamalapuram Railway Station.	461·945	462·195
c/58	BM 49/57 J	81·3	G.T.S. ○ B.M. Cut on verandah flooring about 15 feet W. of booking office at Kamalapuram Railway Station.	462·169	462·419
d/58	BM 50/57 J	81·9	□ Cut on N.W. cap of iron bridge No. 579 across Papaghni river near telegraph post No. 175/8 (Railway bench-mark).	462·707	462·957
e/58	BM 51/57 J	82·4	G.T.S. ○ B.M. Cut on N.E. cap of iron bridge No. 579 across Papaghni river near telegraph post No. 175/2.	462·676	462·926
59	BM 52/57 J	83·2	G.T.S. ○ B.M. Cut on S.W. parapet of bridge No. 575 near telegraph post No. 174/4.	457·302	457·550
60	BM 53/57 J	84·4	G.T.S. ○ B.M. Cut on S.W. cap of bridge No. 565 near mile-stone No. 173.	449·887	450·131
a/60	BM 54/57 J	85·3	G.T.S. ○ B.M. Cut on W. end of S. abutment of culvert No. 557 near telegraph post No. 172/3.	446·655	446·897
61	BM.55/57 J	85·7	G.T.S. ○ B.M. Cut on S.E. end of platform coping at Gangayapalle Railway Station.	448·210	448·453
62	BM.56/57 J	86·6	G.T.S. ○ B.M. Cut on W. end of N. abutment of girder bridge No. 550 near telegraph post No. 170/15.	442·789	443·030
63	BM 57/57 J	88·2	G.T.S. ○ B.M. Cut on S.W. parapet of bridge No. 548 near telegraph post No. 169/4.	447·744	447·988
64	BM 58/57 J	91·3	G.T.S. ○ B.M. Cut on S. end of platform coping at Krishnapuram Railway Station.	434·113	434·350
65	BM 59/57 J	92·0	G.T.S. ○ B.M. Cut on S. cap of drain No. 535 near telegraph post No. 165/7.	429·657	429·892

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Gooty	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
66	BM.60 / 57 J	92·7	G.T.S. ○ B.M. Cut on S. end of N.W. parapet of bridge No. 533 near telegraph post No. 164/11.	431·620	431·856
a/66	BM.61 / 57 J	95·0	G.T.S. ○ B.M. Cut on S.W. return wall of abutment of bridge No. 513 near telegraph post No. 162/6.	450·691	450·937
67	BM.62 / 57 J	95·9	G.T.S. □ B.M. at Cuddapah Railway Station. Embedded in a solid block of masonry about 9 inches below ground, 4 feet in a right line from E. wall of salt godown west of station. The following are distances and bearings of surrounding objects from bench-mark:—S.E. corner of salt godown 11 feet, 224°; N.E. corner of same 11 feet, 354° 45′; N.W. corner of engine-shed 122 feet, 181°; S.W. corner of luggage and parcel office 115° 10′. The letters B.M. have been cut on wall of salt godown facing bench-mark.	451·069	451·316
1/67	BM.63 / 57 J	97·2	G.T.S. Standard Bench Mark. 1907 at Cuddapah. Situated in D.P.W. office compound due S. of building, enclosed in a railed-off space 11 feet square, 46 feet from S.W. corner of front verandah and 138 feet from S.E. corner of godown projection bearing 325° 20′ and 54° 20′, respectively, from bench-mark.	432·390	432·627
1a/67	BM.64 / 57 J	97·3	B.○M. at Protestant Church, Cuddapah. Cut on ledge projecting above plinth at S. angle formed by portico of transept and body of church on W. face of building.	436·398	436·637
2/67	BM.65 / 57 J	98·2	G.T.S. ○ B.M. Cut on N. end of lowest step at W. entrance to Collector's kachahri, Cuddapah.	421·618	421·849
3/67	BM 66 / 57 J	98·2	B.○M. Cut on N.W. end of 2nd step at main entrance to office of Assistant Registrar of Joint Stock Companies, Cuddapah.	422·428	422·659
68	BM.67 / 57 J	96·0	B.M. 128·87 Cut on a stone projecting out of E. wall of gentlemen's lavatory at Cuddapah Railway Station. (Railway bench-mark).	457·551	457·802
69	BM.68 / 57 J	97·7	G.T.S. ○ B.M. Cut on S.W. cap of drain No. 497 near telegraph post No. 159/13.	463·141	463·394
70		98·8	Destroyed.	518·640	518·924
a/70	BM 69 / 57 J	99·8	G.T.S. ○ B.M. Cut on E. end of S. parapet of bridge No. 491 between telegraph posts Nos. 157/12 and 157/11.	577·435	577·751
71	BM.70 / 57 J	101·3	G.T.S. ○ B.M. Cut on S.W. cap of drain No. 488 near telegraph post No. 156/4.	660·912	661·274

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
72	BM 71 / 57 J	102·3	G T S. ○ B.M. Cut on E. end of platform coping at Siddhavattam Railway Station.	633·204	633·551
a / 72	BM.72 / 57 J	102·6	G T.S. ○ B M. Cut on W. end of S. parapet of bridge No. 486 near telegraph post No. 154/16.	619·580	619·920
b / 72	BM.73 / 57 J	104·2	G.T S. ○ B.M. Cut on S. cap of drain No. 479 between telegraph posts Nos. 153/4 and 153/3.	534·498	534·791
73	BM.74 / 57 J	107·5	G T S. ○ B.M. Cut on S. end of W. abutment of drain No. 465 near telegraph post No. 149/15.	447·458	447·703
74	BM 1 / 57 N	108·9	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 459 near telegraph post No. 148/10.	433·336	433·574
75	BM. 2 / 57 N	109·7	G T.S. □ B.M. at Vontimitta Railway Station. Embedded in a solid block of masonry about 6 inches below ground, 4 feet in a right line from S.E face of goods-shed N.W. of station, and 55 feet from centre of main line rails. The following are distances and bearings of surrounding objects from bench-mark :—E. corner of goods-shed 11 feet, 33° 15′; S. corner of same 26 feet, 219°; N.W. corner of station building 149°.	423·005	423·238
a / 75	BM 3 / 57 N	109·8	G.T.S. ○ B.M. Cut on verandah flooring about 5 feet E. of station master's office at Vontimitta Railway Station.	427·370	427·605
76	BM 4 / 57 N	110·9	B.M. □ ○ R.T.S. Marked in tar on E end of pier of bridge No. 445 near telegraph post No. 146/10. *N.B.*—The inscription B.M. ○ has now been cut into the stone. (Tank Restoration Survey bench-mark).	399·820	400·040
77	BM.5 / 57 N	112·2	G.T.S. ○ B.M. Cut on S. cap of bridge No. 448 near telegraph post No. 145/4.	415·775	416·004
78	BM 6 / 57 N	114·4	G.T.S. ○ B.M. Cut on W. parapet of culvert No. 432 near telegraph post No. 143/2.	468·395	468·653
79	BM 7 / 57 N	115·7	G.T.S. ○ B.M. Cut on S. parapet of culvert No. 421 near telegraph post No. 141/13.	468·895	469·154
80	BM 8 / 57 N	120·0	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 402 near telegraph post No. 137/8.	470·323	470·584

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
81	BM.9 / 57 N	120·3	G.T.S. ○ B.M. Cut on N. parapet of drain opposite railway staff quarters at Nandalur.	467·703	467·963
a / 81	BM.10 / 57 N	120·7	G.T.S. □ B.M. at Nandalur Railway Station. Embedded in a solid block of masonry about 9 inches below ground, 5 feet from S. wall of goods-shed north of station, 45 feet in a right line from centre of station line rails. The following are distances and bearings of surrounding objects from bench-mark :—S.W. corner of goods-shed 25 feet, 269° 30′; S.E. corner of same 11 feet, 51° 40′; N.W. corner of scavenger's hut 74 feet, 114°; N.E. corner of engine-shed 176 feet, 250° 45′. The letters B.M. have been cut on S. wall of goods-shed facing bench-mark.	471·953	472·215
82	BM.11 / 57 N	121·3	G.T.S. ○ B.M. Cut on E. cap of N. abutment of new bridge across Cheyyeru river near telegraph post No. 136/3.	485·230	485·500
83	BM.12 / 57 N	121·3	G.T.S. ○ B.M. Cut on W. end of N. abutment of old bridge No. 393 across Cheyyeru river near telegraph post No. 136/3.	482·191	482·459
84	BM.13 / 57 N	122·0	G.T.S. ○ B.M. Cut on W. end of S. abutment of old bridge across Cheyyeru river.	482·143	482·411
a / 84	BM.14 / 57 N	122·0	G.T.S. ○ B.M. Cut on centre of S. abutment of new bridge across Cheyyeru river.	484·621	484·891
85	BM.15 / 57 N	122·8	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 384 near telegraph post No. 134/11.	467·511	467·772
86	BM.16 / 57 N	124·3	○ B.M. Cut on N.E. parapet of drain No. 372 near telegraph post No. 133/3.	460·316	460·573
a / 86	BM.17 / 57 N	124·8	G.T.S. ○ B.M. Cut on S. cap of bridge No. 370 near telegraph post No. 132/15.	463·371	463·630
87	BM.18 / 57 N	125·9	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 357 near telegraph post No. 131/10.	444·640	444·889
88	BM.19 / 57 N	126·3	M.R. □ B.M. Marked in tar on S.E. cap of bridge No. 356 near telegraph post No. 131/3 (Railway bench-mark).	453·988	454·242
a / 88	BM.20 / 57 N	127·7	G.T.S. ○ B.M. Cut on verandah flooring at S. face of store-room on platform at Razampeta Railway Station.	462·567	462·826
89	BM.21 / 57 N	128·9	G.T.S. ○ B.M. Cut on S. end of W. parapet of bridge No. 349 near telegraph post No. 128/10.	467·033	467·295

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
90	BM 22 / 57 N	131·6	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge No. 339 near telegraph post No. 125/15.	499·886	500·167
91	BM.23 / 57 N	133·7	G.T.S. ○ B.M. Cut on N. end of E. parapet of bridge No. 330 near telegraph post No. 123/15.	525·045	525·340
92	BM.24 / 57 N	135·1	G.T.S. ○ B.M. Cut on E. parapet of drain No. 319 near telegraph post No. 122/9.	543·745	544·051
a/92	BM 25 / 57 N	135·6	G.T.S. □ B.M. at Reddipalle Railway Station. Embedded in a solid block of masonry about 9 inches below ground, 5 feet from S.E. wall of goods-shed N.W. of station and 41½ feet from centre of main line rails. The following are distances and bearings of surrounding objects from bench-mark:—S. corner of goods-shed 14 feet, 256°; E. corner of same 22 feet, 39° 10′; W. corner of pointsman's hut 203 feet, 200° 15′; N.W. end of platform coping 338 feet, 136° 45′.	555·316	555·629
93	BM.26 / 57 N	135·7	G.T.S. ○ B.M. Cut on N.W. end of platform coping at Reddipalle Railway Station.	560·188	560·503
94	BM 27 / 57 N	136·6	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 312 near telegraph post No. 120/15.	578·725	579·051
95	BM 28 / 57 N	138·1	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 308 near telegraph post No. 119/8.	587·490	587·821
96	BM.29 / 57 N	140·3	G.T.S. ○ B.M. Cut on N.E. abutment of bridge No. 300 near telegraph post No. 117/4.	617·874	618·223
97	BM 30 / 57 N	141·8	G.T.S. ○ B.M. Cut on S. end of W. parapet of bridge No. 286 near telegraph post No. 115/12.	639·086	639·448
98	BM.31 / 57 N	143·0	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge No. 283 near telegraph post No. 114/9.	645·051	645·416
99	BM 32 / 57 N	144·2	○ B.M. Cut on E. parapet of drain No. 276 near telegraph post No. 113/6.	630·203	630·560
100	BM.34 / 57 O	144·5	G.T.S. ○ B.M. Cut on E. return wall of S. abutment of bridge No. 274 near telegraph post No. 113/1.	633·935	634·294
101	BM.35 / 57 O	145·5	○ B.M. Cut on E. parapet of drain No. 271 near telegraph post No. 112/1.	616·155	616·505

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
102	BM.36 / 57 O	145·8	G.T.S. ○ B.M. Cut on W. end of S. cap of girder bridge No. 270 near telegraph post No. 111/12.	613·262	613·610
103	BM.37 / 57 O	147·7	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 256 near telegraph post No. 109/14.	629·015	629·373
104	BM 38 / 57 O	148·3	G.T.S. □ B.M. at Koduru Railway Station. Embedded in a solid block of masonry about 4 feet below ground on ramp of platform adjoining N.W. end of goods-shed, 6 feet from its N.W. end and 40 feet in a right line from centre of station line rails. The following are distances and bearings of surrounding objects from bench-mark:—N. corner of goods-shed 88 feet, 133° 10′; W. corner of same 88 feet, 155° 15′; S. gate-post of permanent way inspector's bungalow 252 feet, 293° 30′.	638·740	639·104
105	BM.39 / 57 O	148·5	G.T.S. ○ B.M. Cut on N. end of verandah flooring at Koduru Railway Station.	642·354	642·719
106	BM.40 / 57 O	149·1	G.T.S. ○ B.M. Cut on N. end of W. parapet of bridge No. 255 near telegraph post No. 108/8.	634·273	634·634
107	BM.41 / 57 O	151·0	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 250 near telegraph post No. 106/10.	664·169	664·548
108	BM.42 / 57 O	151·7	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 248 near telegraph post No. 105/15.	669·017	669·399
109	BM.43 / 57 O	153·3	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge No. 246 near telegraph post No. 104/5.	687·148	687·541
110	BM.44 / 57 O	154·5	G.T.S. ○ B.M. Cut on middle of platform coping in front of station house at Settigunta Railway Station.	709·379	709·785
111	BM.45 / 57 O	155·1	G.T.S. ○ B.M. Cut on N. end of W. parapet of bridge No. 242 near telegraph post No. 102/6.	716·003	716·413
a/111	BM.46 / 57 O	155·9	G.T.S. ○ B.M. Cut on W. end of N. abutment of bridge No. 239 near telegraph post No. 101/11.	738·129	738·552
112	BM.47 / 57 O	158·5	G.T.S. ○ B.M. Cut on S.W. cap of bridge No. 235 near telegraph post No. 99/1	791·641	792·096
113	BM.48 / 57 O	161·8	G.T.S. ○ B.M. Cut on S. return wall of bridge No. 232 near telegraph post No. 95/13	659·037	659·417

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
114	BM.49 / 57 O	163·6	G.T.S. ○ B.M. Cut on S. cap of bridge No. 228 near mile-stone No. 94.	599·659	600·005
a / 114	BM 50 / 57 O	165·1	G.T.S. □ B.M. at Mamandurn Railway Station. Embedded in a solid block of masonry 6 inches below ground and about 5 feet from S. wall of a temple ruin E. of railway station. The following are distances and bearings of surrounding objects from the bench-mark :—N.E. corner of station master's quarters 45 feet, 297° 45′; S.E. corner of same 54 feet, 269° 40′; S.W. corner of temple ruin 5 feet, 346° 15′; S.E. corner of temple 16 feet, 77°; N.W. corner of station house 145 feet, 261° 40′; N.E. corner of station house 117 feet, 239° 30′.	568·136	568·464
115	BM.51 / 57 O	166·3	G.T.S. ○ B.M. Cut on S. parapet of bridge No. 221 near telegraph post No. 91/5.	555·579	555·901
116	BM 52 / 57 O	167·3	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 219 between telegraph posts Nos. 90/7 and 90/6.	530·552	530·859
a / 116	BM.53 / 57 O	168·6	G.T.S. ○ B.M. Cut on W. end of S. abutment of bridge No. 215 near telegraph post No. 89/1.	483·372	483·652
117	BM.54 / 57 O	170·2	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 210 near telegraph post No. 87/7.	431·998	432·249
118	BM 55 / 57 O	171·7	G.T.S. ○ B.M. Cut on E. parapet of bridge No. 205 near telegraph post No. 85/15.	373·018	373·235
a / 118	BM.56 / 57 O	172·9	G.T.S. ○ B.M. Cut on E. parapet of bridge No. 201 near telegraph post No. 84/11.	358·889	359·098
119	BM.57 / 57 O	173·2	G.T.S. ○ B.M. Cut on S. end of W. parapet of bridge No. 200 near telegraph post No. 84/6.	358·664	358·873
a / 119	BM 58 / 57 O	174·0	G.T.S. □ B.M. at Renigunta Railway Station. Embedded in a solid block of masonry about 4 feet below level of platform on Madras line side, 20 feet in a direct line from edge of platform. The following are distances and bearings of surrounding objects from bench-mark:—N.E. corner of tank-house 17 feet, 2° 40′; S.E. corner of same 5 feet, 257°; S.W. corner of engine-shed 190 feet, 52° 40′; S.E. corner of latrine 161 feet, 16° 30′.	364·821	365·033
120	BM 59 / 57 O	174·2	G.T.S. ○ B.M. Cut on W. parapet over first arch on N. side of bridge No. 197 near telegraph post No. 83/8.	368·894	369·109

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks			Distance from Gooty	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/120	BM.60/57 O	175·9	G.T.S. ○ B.M. Cut on S. end of W. parapet of bridge No. 190 near telegraph post No. 81/12.	394·069	394·299
121		BM.61/57 O	177·4	G.T.S. ○ B.M. Cut on N. end of W. parapet of bridge No. 185 near telegraph post No. 80/5.	399·992	400·226
122		BM.62/57 O	179·2	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 173 near telegraph post No. 78/7.	415·963	416·207
123		BM.63/57 O	180·1	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 168 near telegraph post No. 77/8.	429·248	429·499
124		BM.64/57 O	180·9	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 160 near telegraph post No. 76/11.	460·777	461·048
125		BM.65/57 O	181·8	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 156 near telegraph post No. 75/14.	502·590	502·885
126		BM.66/57 O	183·0	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 151 near telegraph post No. 74/13.	538·995	539·312
127		BM.67/57 O	184·9	G.T.S. ○ B.M. Cut on S. end of W. parapet of bridge No. 144 near telegraph post No. 72/13.	558·812	559·141
128		BM.68/57 O	186·6	G.T.S. ○ B.M. Cut on rock *in situ* on E. side of railway line, 12 feet from nearest rail, near telegraph post No. 71/3.	509·082	509·382
129		BM.69/57 O	186·9	G.T.S. ○ B.M. Cut on W. parapet of bridge No. 133 near telegraph post No. 70/15.	497·614	497·908
	a/129	BM.70/57 O	187·9	G.T.S. ○ B.M. Cut on S. end of W. parapet of bridge No. 128 between telegraph posts Nos. 69/16 and 69/15.	474·451	474·731
130		BM.71/57 O	188·4	G.T.S. □ B.M. at Puttur Railway Station. Embedded in a solid block of masonry about 1 foot below ground, 5 feet from S. wall of salt godown. The following are distances and bearings of surrounding objects from bench-mark:—S.W. corner of salt godown 15 feet, 264° 40′; S.E corner of same 6 feet, 0° 10′; N.W. corner of tank-house 183 feet, 119°; N.E. corner of station building 365 feet, 150° 45′; centre of tank-house well 215 feet, 106° 40′.	491·022	491·312

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/130	BM.72/57 O	188·5	G.T.S. O B.M. at rock *in situ*. Cut on out-cropping mass of granite about 3¾ and 3¼ chains from N. and E. corners respectively of Puttur Railway Station.	488·714	489·003
131	BM.73/57 O	189·5	G.T.S. O B.M. Cut on W. parapet of bridge No. 125 near telegraph post No. 68/5.	476·318	476·600
a/131	BM 74/57 O	191·2	G.T.S. O B.M. Cut on S.W. cap of bridge No. 117 near telegraph post No. 66/11.	464·447	464·722
132	BM 75/57 O	192·7	G.T.S. O B.M. Cut on W. parapet of drain No. 107 near telegraph post No. 65/1.	466·964	467·241
133	BM 76/57 O	193·1	G.T.S. O B.M. Cut on E. end of N. abutment of bridge No. 105 near telegraph post No. 64/12.	472·505	472·786
134	BM 77/57 O	194·4	O B.M. Cut on rock *in situ*, N.W. side of railway line as you enter granite cutting, near telegraph post No. 63/8.	487·506	487·796
a/134	BM 78/57 O	195·4	G.T.S. O B.M. Cut on centre of W. parapet of bridge No. 101 near telegraph post No. 62/6.	431·555	431·811
135	BM 79/57 O	196·0	G.T.S. O B.M. Cut on W. parapet of drain No. 96 near telegraph post No. 61/15.	401·468	401·707
136	BM.80/57 O	197·9	G.T.S. O B.M. Cut on S. end of W. parapet of bridge No. 85 across Nagari river near telegraph post No. 59/17.	394·095	394·330
a/136	BM 81/57 O	198·1	G.T.S. O B.M. Cut on S. end of platform coping at Nagari Railway Station.	397·135	397·372
137	BM.82/57 O	198·1	G.T.S. □ B.M. at Nagari Railway Station. Embedded in a solid block of masonry about 3 inches below ground, 4 feet S.W. of large well S.E. of station, and 24 feet in a right line from wooden palisade fence limiting platform. The following are distances and bearings of surrounding objects from bench-mark :—E. corner of tank-house 13 feet, 304° 30′; S. corner of same 21 feet, 275° 20′; W. corner of assistant station master's house 94 feet, 134°; E. corner of station house 255 feet, 332° 50′; centre of well 12 feet, 41°.	392·940	393·175
138	BM 83/57 O	199·1	G.T.S. O B.M. Cut on centre cap of N. abutment of bridge No. 75 near telegraph post No. 58/11.	397·153	397·390

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks			Distance from Gooty	Description of Bench-marks		Corrected Elevation	
	Geodetic	Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
	a/138	BM.84/57 O	200·2	G.T.S. ○ B.M.	Cut on W. parapet of bridge No. 71 near telegraph post No. 57/9.	424·740	424·994
	b/138	BM.85/57 O	201·8	G.T.S. ○ B.M.	Cut on centre cap of N. abutment of girder bridge No. 61 near mile-stone No. 56.	379·538	379·765
139		BM.86/57 O	204·2	G.T.S. ○ B.M.	Cut on N.W. cap of bridge No. 51 near telegraph post No. 53/10	308·236	308·421
	a/139	BM.87/57 O	205·8	G.T.S. ○ B.M.	Cut on W. end of N. abutment of bridge No. 38 near telegraph post No. 52/2.	286·237	286·409
140		BM.88/57 O	206·5	G.T.S. ○ B.M.	Cut on centre of W. parapet of bridge No. 42 near telegraph post No. 51/6.	280·824	280·993
141		BM.89/57 O	207·3	G.T.S. □ B.M.	at Tiruttani Railway Station. Embedded in a solid block of masonry about 6 inches below ground, 3 feet 6 inches N. of a small well near W. corner of quarters for station staff. The following are distances and bearings of surrounding objects from bench-mark:—W. corner of station master's house 26 feet, 86° 10′; S. corner of same 55 feet, 127°; centre of well 7 feet, 160°. The letters B.M. have been cut on wall of well facing bench-mark.	280·763	280·932
142		BM.90/57 O	207·3	G.T.S. ○ B.M.	Cut on platform coping opposite station master's quarters at Tiruttani Railway Station.	282·587	282·757
	a/142	BM.91/57 O	208·7	G.T.S. ○ B.M.	Cut on W. parapet of bridge No. 26 near telegraph post No. 49/2.	277·454	277·621
143		BM.92/57 O	210·3	G.T.S. ○ B.M.	Cut on E. parapet of bridge No. 17 near telegraph post No. 47/9.	280·408	280·577
144		BM.93/57 O	211·8	G.T.S. ○ B.M.	Cut on W. end of S. abutment of bridge No. 14 near mile-stone No. 46.	263·871	264·030
145		BM.94/57 O	213·9	○ B.M.	Cut on E. end of N. abutment of bridge No. 3 near mile-stone No. 44.	281·971	282·142
146		BM.95/57 O	214·6	G.T.S. ○ B.M.	Cut on W. end of S. abutment of bridge No. 2 near telegraph post No. 43/6.	293·792	293·970
147		BM.96/57 O	215·3	G.T.S. ○ B.M.	Cut on centre of N. platform coping at Arkonam Junction Railway Station.	295·790	295·969

Main-Line 14. (Gooty to Arkonam).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/147	BM.97/57 O	215·3	R.L. 297·50. Cut on N. platform coping in front of booking office, Arkonam Junction Railway Station. (Railway bench-mark).	295·782	295·961
148	BM 1/57 O	215·4	G.T.S □ B.M. at Arkonam Railway Station. Embedded in a solid block of masonry about 3 feet below level of platform between railway mail service office and plague examination shed. The following are distances and bearings of surrounding objects from bench-mark :—N.E. corner of station house 142 feet, 267°; N.W corner of railway mail service office 21 feet, 53°; S.W. corner of same 25 feet, 128°. A large stone slab has been laid over B M. about level with platform.	293·105	293·283

Main-Line 15. (Gooty to Bellary).

Designation of Bench-marks			Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.1 / 57 E	0·0	G.T.S. □ B.M. at Gooty Railway Station. Embedded in a solid block of masonry, 4 feet E. of E. wall of goods loading shed, about 6 inches below ground level. The following are distances and bearings of surrounding objects from bench-mark:—S.W. corner of goods loading shed 6 feet, 133° 30′; N.W. corner of same 32 feet, 23° 30′; telegraph post No. 257/7 173 feet, 341° 20′. S.E. corner of engine-shed opposite station house bears 294° 50′ from bench-mark.	1199·031	1199·648
2			0·1	Destroyed.	1158·334	1158·930
	a/2	BM.19 / 57 E	2·3	On upper mark-stone of Namthabad G.T. Survey Station, lat. 15° 5′ 52″·40, long. 77° 36′ 26″·91. A secondary station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1168·927	1169·529
	b/2	BM.20 / 57 E	2·4	On upper mark-stone of Gooty North End Base, G.T. Survey Station, lat. 15° 5′ 45″·81, long. 77° 36′ 29″·97. A secondary station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1166·333	1166·934
3		BM.21 / 57 E	0·7	G.T.S. ○ B.M. Cut on a stone embedded in top of a low pillar on summit of embankment on S. side of large tank at Gooty: upon the stone are carved two representations of the human foot.	1172·121	1172·726
4			2·3	Destroyed.	1159·873	1160·473
5		BM.22 / 57 E	2·8	○ Cut on summit of a stone on flank of a road culvert. The letters G.T.S. B.M. are cut on stone adjacent to ○.	1159·074	1159·672
6		BM.23 / 57 E	4·2	○ Cut on summit of a large out-cropping rock in encamping ground for carts at W. end of village of Rajapuram, 10 feet N. of road and a little E. of tank which is N. of road. The letters G.T.S. B.M. are cut on rock adjacent to ○.	1159·013	1159·611
7			4·4	Destroyed.	1153·676	1154·271
8			5·4	Destroyed.	1166·114	1166·716
9			6·4	Destroyed.	1190·550	1191·165
10			7·4	Destroyed.	1240·969	1241·608
11			8·4	Destroyed.	1244·098	1244·739
12		BM.24 / 57 E	8·7	○ Cut on highest point of an out-cropping rock on S. margin of road, 40 feet W. of junction with branch road leading to Patakottacheru dâk bungalow. The letters G.T.S. B.M. are cut on stone adjacent to ○ which is 1 foot above level of road.	1264·456	1265·107

Main-Line 15. (Gooty to Bellary).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
13		9·4	Destroyed.	1255·969	1256·616
14		10·4	Destroyed.	1265·705	1266·357
15		11·6	Destroyed.	1276·211	1276·868
16		13·6	Destroyed.	1315·999	1316·677
17	BM 25 / 57 E	14·2	A pyramid of cut-stone, embedded 10 feet from N. side of road, 176 yards E. of small temple on road side at village of Timapuram, 25 feet S.W. of W. angle of a small rest-house on N. side of road. The stone is covered up with a heap of stones and earth; 1 yard N. of it is a brick pillar, the top of its plinth being on a level with summit of stone; 1 yard S. of pillar is a heap of stones set in cement.	1313·240	1313·916
18		14·6	Destroyed.	1322·421	1323·102
19		15·7	Destroyed.	1351·739	1352·435
20	BM 26 / 57 E	15·7	On rock *in situ* 50 feet from N. margin of road, and 148 yards W. of mile-stone No. 35 from Bellary.	1354·180	1354·877
21		16·6	Destroyed.	1382·993	1383·705
22		18·6	Destroyed.	1457·978	1458·729
23		19·6	Destroyed.	1489·325	1490·092
24		20·7	Destroyed.	1493·754	1494·523
25		21·7	Destroyed.	1463·769	1464·523
26		22·7	Destroyed.	1487·165	1487·932
27		23·7	Destroyed.	1476·796	1477·558
28		24·1	Destroyed.	1462·905	1463·660
29		24·7	Destroyed.	1434·269	1435·009
30		25·1	Destroyed.	1413·834	1414·564
31		25·5	Destroyed.	1408·137	1408·864
32		26·5	Destroyed.	1414·647	1415·377
33		26·7	Destroyed.	1424·935	1425·670
34		27·4	Destroyed.	1431·660	1432·399
35		27·8	Destroyed.	1436·804	1437·545

Main-Line 15. (Gooty to Bellary).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Gooty	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
36	BM.27 / 57 E	28·4	○ at Gadekal Dak Bungalow. Cut near base of N. face of a large prism of stone of 1¼ feet sides and 4½ feet in height, at N.E. corner of enclosure wall of compound of bungalow, 36 feet S. of road, 100 feet E. of mile-stone No. 22, and 80 feet E. of a small culvert across the road. The letters G.T.S. B.M. are cut on E. face of stone.	1450·462	1451·212
37	BM.28 / 57 E	29·1	at Gadekal. On highest point of a large black flat rock 1 foot above ground; 3 feet from the rock on its E. and W. sides are two large piles of stones; it is at about highest part and on N. margin of road between Donakal and Gadekal, and at foot of a small hill rising abruptly from N. side of road. The highest tower of old fort at Gadekal bears from rock 103°. On flat surface of rock some lines are cut, indicating diagram of a game.	1460·732	1461·487
38		29·4	Destroyed.	1456·678	1457·431
39		30·4	Destroyed.	1424·484	1425·220
40		31·4	Destroyed.	1387·753	1388·469
41	BM.29 / 57 E	31·5	○ Cut on summit of S. half of an out-cropping rock in encamping ground for carts at E. entrance of village of Donakal, 40 feet S. of road, 25 feet S.E. of a *tamul* tree and 66 yards from W. bank of a deep flowing nala crossing road. The summit of rock is 2 feet above ground, split into two parts. The letters G.T.S. B.M. are cut on upper surface of northern half of rock. A pillar of bricks has been erected above rock, 3 feet to N. and S. of which are two piles of stones.	1381·853	1382·566
42		32·5	Destroyed.	1416·257	1416·988
43		33·4	Destroyed.	1425·076	1425·811
44		34·4	Destroyed.	1420·000	1420·733
45		35·4	Destroyed.	1449·945	1450·693
46	BM.30 / 57 E	36·4	○ Cut at base of mile-stone No. 14 from Bellary.	1439·844	1440·587
1/46	BM.31 / 57 E	37·3	○ Cut on upper surface of a large slab resting on stones at end of a stone kerbing to an embanked part of road at a depression. The letters G.T.S. B.M. are cut adjacent to ○.	1427·281	1428·017
47	BM.32 / 57 E	37·4	○ Cut at base of mile-stone No. 13 from Bellary.	1443·346	1444·085
48	BM.33 / 57 E	37·7	○ Cut on highest point of a round black stone 1 foot in diameter, on S. margin of road, forming part of stone kerbing to embankment at a depression, ¼ mile W. of village of Joladarasi. The summit of stone is on a level with road and the letters G.T.S. B.M. are cut adjacent to ○.	1401·130	1401·853

Main-Line 15. (Gooty to Bellary).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
49	BM.34 / 57 E	38·4	○ Cut at base of mile-stone No. 12 from Bellary.	1390·781	1391·499
50	BM.35 / 57 E	39·5	○ Cut at base of mile-stone No. 11 from Bellary.	1365·739	1366·444
51	BM 36 / 57 E	39·6	A pyramidal cut-stone embedded 18 feet from N. margin of road, 18 feet W. of a *babul* tree on N. side of road and 110 feet E. of another; situated at bend of road from Gooty.	1364·126	1364·830
52	BM 37 / 57 E	40·4	○ Cut at base of mile-stone No. 10 from Bellary.	1350·955	1351·653
53	BM 38 / 57 E	40·9	○ Cut on summit of an out-cropping rock 1½ feet above road on S. margin. The letters G T.S. B.M. are cut adjacent to ○.	1346·296	1346·992
54	BM 39 / 57 E	41·4	○ Cut at base of mile-stone No. 9 from Bellary.	1344·674	1345·369
55	BM 40 / 57 E	42·4	○ Cut at base of mile-stone No. 8 from Bellary.	1339·440	1340·132
56	BM 41 / 57 E	42·8	○ Cut on highest point of an out-cropping stone 2½ feet below level of road and 6 inches above ground; on S. side of a small road culvert, 7 feet W. of opening of culvert and 2 feet S. of wing-wall. The letters G T.S. B.M. are cut adjacent to ○.	1349·522	1350·220
57	BM 42 / 57 E	43·4	○ Cut at base of mile-stone No. 7 from Bellary.	1359·164	1359·867
58	BM 43 / 57 E	44·5	○ Cut at base of mile-stone No. 6 from Bellary.	1366·721	1367·428
59	BM 1 / 57 A	45·4	○ Cut at base of mile-stone No. 5 from Bellary.	1386·312	1387·029
60	BM 2 / 57 A	46·4	○ Cut at base of mile-stone No. 4 from Bellary.	1401·836	1402·561
61	BM 3 / 57 A	47·4	○ Cut at base of mile-stone No. 3 from Bellary.	1418·657	1419·389
62	BM.4 / 57 A	48·4	○ Cut at base of mile-stone No. 2 from Bellary.	1441·879	1442·623
63	BM 5 / 57 A	49·4	○ Cut at base of mile-stone No. 1 from Bellary.	1465·162	1465·918

Main-Line 15. (Gooty to Bellary).

Designation of Bench-marks		Distance from Gooty	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
64	BM.6 / 57 A	49·6	○ at Bellary. Cut on summit of an out-cropping boulder 1½ feet above ground, 15 feet from W. margin of road, near foot of a pile of immense rocks W. of road, in S.W. angle of crossing of road Bellary to Gooty with road to Raichur. The flag-staff in compound of General's house bears from stone 83° and 224 yards distant; the flag-staff of Bellary fort bears 279°. The stone is surmounted by a brick pillar, and adjacent to it on its N.W. and S.E. sides are two piles of stones set in cement. The letters G.T.S. B.M. are cut adjacent to ○.	1476·348	1477·110
65	BM.7 / 57 A	50·2	Rail at Bellary Railway Station opposite large archway at W. end of station building, and 112 feet from W. end of platform.	1481·545	1482·308
66	BM.8 / 57 A	50·7	G.T.S. ○ B.M. at Bellary. Cut on a big flooring stone of a paved drain carrying water of ditch round fort to great tank, on road round glacis of fort, and N.E. of E. fort gate. It is on W. side of road, 70 feet N. of junction with fort main road and 119 feet N.W. of C.B. pillar No. 1.	1480·254	1481·016

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks		Distance from Hubli	Description of Bench-marks	Corrected Elevation *	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.1 / 48 M	0·0	G.T.S. □ B.M. at travellers' bungalow, Hubli. Embedded in a block of masonry, in compound of bungalow, with upper surface of stone about 9 inches below ground level and enclosed by iron railings 13 feet and 138° from S.W, and 9 feet and 240° from S.E corners of southern projection of bungalow, 139 feet and 327½° from N.E. corner of stables; and 96 feet and 6° from S.W. corner of kitchen.	2059·286	2060·327
a / 1	BM.2 / 48 M	0·2	G T S. ○ B M. at municipal office, Hubli. Cut on paving stone of verandah against pillar at N.W. corner of main entrance porch.	2074·820	2075·870
b / 1	BM 3 / 48 M	0·3	G.T S. ○ B.M. at S. B. Chitgupi Grant-in-aid Dispensary, Hubli. Cut on centre of stone flooring of front or S. verandah.	2077·442	2078·493
c / 1	BM 4 / 48 M	0·7	↗ G T S. B.M. Cut on stone coping of platform opposite station master's office at Hubli Railway Station.	2091·062	2092·120
d / 1	BM 5 / 48 M	0·7	○ G.T.S. B M. Cut on base of home signal at Hubli Railway Station.	2092·022	2093·081
2	BM.6 / 48 M	1·5	G.T S. ○ B.M. Cut on stone parapet of paka well on S. side of road, 97 feet S. of furlong-stone No. 103/7, and 103 feet W of W. gate-post of cemetery, Hubli	2117·353	2118·423
3	BM 7 / 48 M	3·9	G.T.S. ○ B M. Cut on E. end of N parapet of culvert No. 163 near furlong-stone No. 106/2.	2087·794	2088·850
a / 3	BM 8 / 48 M	6·3	G.T S. □ B.M. Embedded in a block of masonry 3 feet cube, on S. side of main (Karwar-Bellary) road and E. of bridge No. 166, between furlong-stones Nos. 108/4 and 108/5, with upper surface of stone about 6 inches below ground level and covered with earth, 123 feet and 89½° from E. end of S. parapet of bridge, 276 feet and 257° from furlong-stone No. 108/5, and 23 feet from centre of road. A referring pillar, 3 feet above ground, has been built 5 feet S. of bench-mark.	2058·951	2059·993
4	BM.9 / 48 M	7·7	G.T.S. ○ B.M. Cut on mile-stone No. 110.	2001·753	2002·763
a / 4	BM 10 / 48 M	9·9	G.T.S. □ B.M. at Sirguppi P.W.D. Inspection Bungalow. Embedded in a block of masonry 3 feet cube, in compound of bungalow, with upper surface of stone about 6 inches below ground level and covered with earth; 67 feet and 140° from S.W., and 56 feet and 153½° from S.E. corners of bungalow, and 9 feet and 255° from S.W. corner of out-houses. A referring pillar 3 feet above ground has been built 4 feet S. of bench-mark.	1953·100	1954·086

* Deduced from the most recent levelling revision.

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks		Distance from Hubli	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
b/4	BM.11 / 48 M	11·2	G.T.S.○B.M. Cut on centre of S. parapet of culvert No. 175 near furlong-stone No. 113/5.	1972·403	1973·399
c/4	BM.12 / 48 M	13·4	G.T.S. □ B.M. Cut on a stone slab let into S. return-wall of W. abutment of bridge No. 180 over Radihalla nala near furlong-stone No. 115/6.	1947·538	1948·522
d/4	BM.13 / 48 M	13·7	G.T.S B.M. ○ Cut on a stone slab let into front plinth wall, close to S.W. corner of small room at E. end of dharmshala on N. side of road near furlong-stone No. 116/1, opposite Nalvadi village.	1963·090	1964·081
5	BM.14 / 48 M	15·7	G.T.S.○B.M. Cut on centre of N. parapet of culvert No. 184 near furlong-stone No. 118/1.	1985·627	1986·629
a/5	BM.15 / 48 M	17·8	G.T.S.○B.M. Cut on centre of E. parapet of culvert No. 190 near furlong-stone No. 120/2.	1987·812	1988·816
b/5	BM.16 / 48 M	19·1	G.T.S. ○ B.M. Cut on projecting course, at plinth level, at N.W. corner of pillar, at W. end of N. abutment of bridge No. 192 near furlong-stone No. 121/3.	1988·203	1989·207
c/5	BM.17 / 48 M	20·6	○ G.T.S. B.M. Cut on higher of two boulders on N. side of road, 11 feet N. of centre of N. parapet of culvert No. 195 and 21 feet E. of furlong-stone No. 122/6.	2027·433	2028·457
d/5	BM.18 / 48 M	21·5	○ G.T.S. B.M. Cut on an out-cropping rock on S. margin of road, 53 feet S. of furlong-stone No. 123/5, and 22 feet from centre of road.	2045·089	2046·122
e/5	BM.19 / 48 M	22·1	G.T.S. □ B.M. at Annigeri Dak Bungalow. Embedded in a block of masonry 3 feet cube, in compound of bungalow, with upper surface of stone about 6 inches below ground level and covered with earth, 82 feet and 7½° from S.E. corner of southern bath-room, 33 feet and 33½° from N.E corner of northern bath-room, 88 feet and 68° from N.W. corner of verandah, and 80 feet and 205° from S.E. corner of kitchen. A referring pillar 3 feet above ground has been built 3 feet N. of bench-mark.	2052·222	2053·258
f/5	BM.20 / 48 M	24·4	○ B.M. Cut on cap-stone at E. end of N. pillar of W. abutment of girder bridge No. 201 over Savalhalla nala near furlong-stone No. 126/3.	2023·252	2024·274

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks		Distance from Hubli	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
g/5	BM 21/48 M	25·0	G.T.S. B.M. ○ Cut on a stone pillar embedded in N.E. angle of junction of main road with a cart-track going N. to Kondikop village, 274 feet W. of mile-stone No. 127, and 23 feet N. of centre of main road	2052·896	2053·933
h/5	BM.22/48 M	28·7	G.T.S. ○ B.M. Cut on stone parapet of a paka well on N. side of main road and W of Hulkoti village near furlong-stone No. 130/6, 85 feet E. of N.E. corner of dharmshala, and 74 feet W. of N.W. corner of school.	2129·656	2130·732
i/5	BM 23/48 M	31·3	○ B.M. Cut on an out-cropping ridge of black iron rock on N. margin of road at top of a rise, 80 feet W. of furlong-stone No. 133/2, and 35 feet N. of centre of road.	2222·588	2223·711
j/5	BM 24/48 M	32·8	○ B.M. Cut on W. end of N. parapet of masonry bridge No. 228 near furlong-stone No. 134/6.	2181·757	2182·859
6	BM 25/48 M	33·5	B.M. ○ Cut on W. end of N parapet of masonry bridge No. 231 near furlong-stone No. 135/4.	2170·389	2171·480
7	BM 26/48 M	34·3	G.T.S. ○ B.M. Cut on S. end of W. parapet of culvert No. 235, N. of junction of road to Kalsapur with main road near furlong-stone No. 136/3.	2166·174	2167·262
a/7	BM.27/48 M	37·2	G.T.S. ○ B.M. Cut on stone coping of parapet of a paka well S. of Advisomapur village on E. side of road, 192 feet E. of furlong-stone No. 139/1.	2224·326	2225·445
8	BM.28/48 M	40·0	○ G.T.S. B.M. Cut on an octagonal stone pillar embedded on W. side of road at top of a rise, 30 feet from centre of road, 35 feet N. of a revenue survey boundary bank on W. margin of road, and 289 feet S. of mile-stone No. 142. Two piles of stones have been erected on N. and S sides of pillar.	2286·595	2287·749
9	BM.29/48 M	40·8	○ G.T.S. B.M. Cut on N. parapet of culvert No. 257 near furlong-stone No. 142/7.	2236·839	2237·970
a/9	BM.30/48 M	42·1	G.T.S. ○ B.M. Cut on stone coping, to W. of tablet bearing inscription Local Board Well 1903, of parapet of a paka well on N. side of road near furlong-stone No. 144/1 and N. of Kadampur village.	2160·246	2161·339
b/9	BM.31/48 M	43·6	○ B.M. Cut on N. parapet of culvert No. 265 near furlong-stone No. 145/5.	2065·360	2066·405

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks			Distance from Hubli	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
10		BM.32 / 48 M	44·6	○ G.T.S. B.M. Cut on S. parapet of bridge No. 271 near furlong-stone No. 146/5.	2030·073	2031·101
	a/10	B.M.33 / 48 M	46·0	○ B.M. Cut on N. parapet of culvert No. 272 near furlong-stone No. 147/7.	1986·835	1987·842
	b/10	BM 34 / 48 M	48·1	G.T.S. B.M. ○ Cut on centre of E. parapet, just over the inscription 1882, of masonry bridge No. 278 near furlong-stone No. 150/1.	1904·038	1905·003
	c/10	BM.35 / 48 M	52·2	G.T.S. ○ B.M. Cut on centre of N. parapet, just over inscription 1883, of masonry bridge No. 286 near furlong-stone No. 154/1, N. of Mewundi village.	1810·867	1811·785
	d/10	BM.36 / 48 M	53·9	○ G.T.S. B.M. Cut on a stone pillar embedded on N. margin of cart-track to Tamargundi village with its upper surface 1 foot above ground level, 703 feet W. of furlong-stone No. 155/6, and 93 and 142 feet W. of two revenue survey trijunctions in a line; W. of a huge slab 3 feet high of some religious significance. A heap of stones has been collected over pillar.	1807·896	1808·813
	e/10	BM.37 / 48 M	54·1	○ B.M. Cut on a boundary stone bearing the inscription, Bardur Number 80 in Canarese, 2 feet above ground level, 90 feet W. of centre of road, and almost midway between mile-stone No. 156 and furlong-stone No. 156/1.	1800·918	1801·831
11		BM 38 / 48 M	57·1	G.T.S. B.M. ○ Cut on centre of E. parapet, over the inscription 1883, of masonry bridge No. 296 near furlong-stone No. 159/1 and N. of Mundarge village.	1732·034	1732·921
	a/11	BM.39 / 48 M	59·3	○ G.T.S. B.M. Cut on an oblong out-cropping mass of rock 2 feet high on W. side of road, 34 feet N. of foot-path from Ramanhalli village to Belgatti village, and 139 feet W. of furlong-stone No. 161/2.	1718·631	1719·511
	b/11	BM.40 / 48 M	61·0	○ B.M. Cut on a boundary stone 2 feet high, on N. side of road at top of a rise, 84 feet N. of furlong-stone No. 162/7.	1709·11	1709·986

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks		Distance from Hubli	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
c/11	BM.41/48 M	63·3	○ B.M. Cut on boundary stone, bearing the inscription Hesarur No. 44 in Canarese, on W. side of main road (just where it ends), 157 feet W. of furlong-stone No. 165/1, and 200 feet N. of N.E. bastion of Hesarur Fort.	1639·566	1640·406
d/11	BM 42/48 M	63·6	Flood Level Pillar. A pyramidal stone 2½ feet high, bearing the inscription Flood Level July 1882 embedded in compound of Hesarur Dak Bungalow. The letters G T.S. B.M. are cut on front or E. sloping face of stone. The line indicating flood level of July 1882 is 2 feet below top.	1634·646	1635·483
e/11	BM.43/48 M	65·0	○B.M. Cut on plinth stone at S.E corner of school, at Savanhalli village, near furlong-stone No. 6 between miles 71 and 72.	1648·952	1649·796
f/11	BM 44/48 M	66·3	○ B.M. Cut on a whitish boulder at top of a rise, 15 feet S. of centre of road, 193 feet W. of furlong-stone No. 3 between miles 70 and 71, and E. of Madlapur village.	1668·987	1669·842
12	BM 45/48 M	67·7	G.T S. B.M. ○ at base of mile-stone No. 69, W. of Hakandi village (○ B.M. on top of mile-stone is 3·66 feet above lower mark).	1634·664	1635·508
13	BM 9/57 A	69·7	G T.S. B M. ○ at base of mile-stone No. 67, W. of Kalivi village (○ B.M. on top of mile-stone is 3·05 feet above lower mark).	1628·345	1629·185
14	BM.10/57 A	70·5	○ G T.S. B M. Cut on a large whitish boulder on N. margin of road, 307 feet W. of furlong-stone No. 1 between miles 66 and 67.	1620·486	1621·320
15	BM.11/57 A	72·1	B.M.○ Cut on a thin upright stone at E. end of pavement, on N. margin of road at a depression just opposite Hampasagaram village, 74 feet W. of a sign-post at junction of main road with branch road to Huvinahadagali village, and 307 feet W. of furlong-stone No. 4 between miles 64 and 65.	1629·790	1630·629
16	BM.12/57 A	76·8	○ G T S. B M. Cut on a large pyramidal stone 3 feet above ground level built in a masonry pillar, 43 feet N. of centre of road, 328 feet E. of mile-stone No 60, and 196 feet W. of junction of main road with branch road to Basarakodu village. Two mounds of earth have been raised on N. and S. sides of bench-mark.	1647·140	1647·988
17	BM 13/57 A	79·7	○ G T.S. B.M. Cut on top of mile-stone No. 57.	1646·498	1647·346
a/17	BM.14/57 A	80·5	○ G.T S. B.M. Cut on top of an out-cropping rock on N margin of road, 306 feet W. of furlong-stone No. 2 between miles 56 and 57 and 422 feet W. of sign-post at junction of main road with branch road to Tambrahalli village.	1637·394	1638·237
18	BM 15/57 A	81·7	○ G T S. B.M. Cut on top of mile-stone No. 55.	1638·588	1639·430

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks		Distance from Hubli	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
19	BM.16 / 57 A	83·7	○ G.T.S. B.M.	Cut on top of mile-stone No 53.	1610·193	1611·021
a / 19	BM 17 / 57 A	85·8	○ B.M.	Cut on N. parapet of small culvert, 17 feet E. of mile-stone No. 51.	1600·374	1601·196
b / 19	BM.18 / 57 A	86·3	G.T.S. ○ B.M.	at Ballahunsi Dak Bungalow. Cut on centre of stone flooring of main entrance (or S.) verandah close to wall.	1591·455	1592·273
20	BM.19 / 57 A	86·8	○ G.T.S. B.M.	Cut on top of mile-stone No. 50, ¼ mile W. of junction of main road with branch road to Narayanadevarakeri village.	1602·886	1603·710
a / 20	BM 20 / 57 A	89·6	○ G.T.S. B.M.	Cut on rock *in situ* on S. side of road, 321 feet E. of furlong-stone No. 2 between miles 47 and 48, 66 feet S. of a culvert, and 198 feet W. of masonry telegraph pillar No. 393 (now disused). A masonry pillar has been built over mark.	1584·859	1585·674
21	BM.21 / 57 A	89·8	○ G.T.S. B.M.	Cut on top of mile-stone No. 47.	1594·368	1595·184
a / 21	BM.22 / 57 A	90·9	○ G.T.S. B.M.	Cut on an out-cropping boulder on N. margin of road within a bend, 139 feet W. of a culvert, 46 feet W. of junction of main road with cart-track to Narayanadevarakeri village, and 257 feet E. of furlong-stone No. 7 between miles 45 and 46.	1606·282	1607·104
b / 21	BM.23 / 57 A	92·1	○ B.M.	Cut on an out-cropping whitish boulder on S. margin of road, 272 feet W. of furlong-stone No. 6 between miles 44 and 45.	1602·928	1603·749
22	BM.24 / 57 A	92·7	○ G.T.S. B.M.	Cut on top of mile-stone No. 44.	1603·383	1604·202
23	BM.25 / 57 A	94·4	○ G.T.S. B.M.	Cut on an out-cropping rock on left bank of Mukartihalla nala and on N. margin of road, 25 feet E. of furlong-stone No. 3 between miles 42 and 43, and E. of Gauripuram village.	1570·419	1571·220
a / 23	BM.26 / 57 A	95·2	G.T.S. ○ B.M.	at Virbhadra Temple. Cut on 2nd stone step from bottom, on N. margin of road at highest point of pass E. of railway level crossing, and 200 feet S. of furlong-stone No. 4 between miles 41 and 42.	1747·293	1748·184
24	BM.27 / 57 A	95·5	○ B.M.	Cut on topmost course of E. retaining wall of embankment of road, 320 feet N. of furlong-stone No. 3 between miles 41 and 42.	1700·280	1701·147
25	BM 28 / 57 A	96·8	○ G.T.S. B.M.	Cut on top of mile-stone No. 40 on N. margin of road and 24 feet E. of a culvert.	1605·177	1605·995
26	BM 29 / 57 A	97·8	○ B.M.	Cut on top of mile-stone No. 39.	1579·074	1579·879

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks		Distance from Hubli	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/26	BM.30/57 A	98·4	O G.T.S. B.M. Cut on upper plinth of E. gate-post at Vadakaray Temple, Hospet.	1570·839	1571·640
27	BM.31/57 A	98·6	O B.M. Cut on top of mile-stone No. 38.	1574·587	1575·390
a/27	BM 32/57 A	99·1	O G.T.S. B.M. Cut on an out-cropping rock on N. side of road, 64 feet W. of two immense boulders 45 feet apart, 163 feet W. of furlong-stone No. 4 between miles 37 and 38, and 430 feet E. of a bridge.	1579·543	1580·349
28	BM 33/57 A	99·6	O B.M. Cut on top of mile-stone No. 37.	1593·843	1594·655
a/28	BM.34/57 A	102·2	O B.M. Cut on S. parapet of a culvert near furlong-stone No. 4 between miles 34 and 35.	1718·335	1719·211
29	BM 35/57 A	102·6	G T S. B M. O at base of mile-stone No. 34 (O B.M. on top of mile-stone is 2 70 feet above lower mark).	1736·981	1737·870
a/29	BM 36/57 A	103·1	B M. O Cut on a pyramidal stone embedded on S. margin of railway line near telegraph post No. 169/12 and opposite an upright stone marked 340 (Railway bench-mark).	1743·687	1744·578
30	BM 37/57 A	105·5	O G.T.S. B.M. Cut on a large projecting abutment stone, at W. end of a drain on branch road to Kamalapuram, going through Papinayakanahalli village, at its junction with main road, and near furlong-stone No. 3 between miles 31 and 32.	1819·724	1820·654
31	BM 38/57 A	105·9	O B.M. Cut on top of mile-stone No. 31.	1826·128	1827·061
a/31	BM 39/57 A	108·6	O B M. Cut on N. parapet of a culvert near furlong-stone No. 2 between miles 28 and 29.	1726·935	1726·593
32	BM 40/57 A	109·9	G T S. B.O M. at base of mile-stone No. 27 (O B.M. on top of mile-stone is 2 53 feet above lower mark).	1678·401	1679·262
33	BM.41/57 A	110·9	G.T S B M. O at base of mile-stone No. 26 at top of steps leading down to a paka well N. of Dharmasagaram village. (O B M on top of mile-stone is 2·92 feet above lower mark).	1665·245	1666·099
34	BM 42/57 A	111·9	O G.T S. B.M. Cut on top of mile-stone No. 25.	1628·101	1628·935
35	BM.43/57 A	112·9	O G.T.S. B.M. Cut on top of mile-stone No. 24.	1601·235	1602·055
a/35	BM 44/57 A	113·1	G.T.S. O B M. Cut on 2nd stone step from bottom, on south side of Gadiganuru Dak Bungalow.	1598·863	1599·682

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks			Distance from Hubli	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	1a/35	BM.45/57 A	113·7	G.T.S. ○ B.M. Cut on N. cap of E. abutment of bridge No. 80 near telegraph post No. 179/8.	1595·882	1596·699
	1b/35	BM.46/57 A	113·8	○ G.T.S. B.M. Cut on upper plinth, at S.E. corner of masonry tank-house of Gadiganuru Railway Station.	1596·691	1597·509
	1c/35	BM.47/57 A	113·8	○ G.T.S. B.M. Cut on base of home signal at Gadiganuru Railway Station.	1597·271	1598·089
	b/35	BM.48/57 A	113·4	G.T.S. ○ B.M. Cut on 1st stone step from bottom at Gadiganuru Police Station.	1587·294	1588·107
36		BM.49/57 A	113·9	○ G.T.S. B.M. Cut on top of mile-stone No. 23.	1572·404	1573·209
37		BM.50/57 A	115·3	G.T.S. ○ B.M. Cut on S. parapet of a culvert near furlong-stone No. 5 between miles 21 and 22.	1547·104	1547·898
38		BM.51/57 A	116·9	G.T.S. B.M. ○ at base of mile-stone No. 20 (○ B.M. on top of mile-stone is 3·37 feet above lower mark).	1535·510	1536·300
39		BM.52/57 A	117·2	○ B.M. Cut on a flat upright guard-stone, 2 feet above level of road-way, placed on W. side of recess in N. parapet of a bridge, near furlong-stone No. 6 between miles 19 and 20.	1541·155	1541·946
	a/39	BM.53/57 A	117·8	○ G.T.S. B.M. Cut on base of home signal at Toranagallu Railway Station.	1541·879	1542·670
40		BM.54/57 A	117·9	G.T.S. B.○M. at base of mile-stone No. 19 (○ B.M. on top of mile-stone is 3·44 feet above lower mark).	1540·031	1540·823
41		BM.55/57 A	119·0	○ G.T.S. B.M. Cut on a triangular pyramidal rock on S. margin of road, W. of Toranagallu village, and 280 feet E. of mile-stone No. 18.	1539·329	1540·119
42		BM.56/57 A	120·9	○ Cut on top of mile-stone No. 16.	1560·654	1561·455
	a/42	BM.57/57 A	123·2	○ G.T.S. B.M. Cut on an out-cropping black rock, 1 foot above ground level on E. margin of road, 227 feet S. of a culvert, and 360 feet S. of furlong-stone No. 6 between miles 13 and 14.	1588·606	1589·421
43		BM.58/57 A	125·0	○ G.T.S. B.M. Cut on top of mile-stone No. 12 at junction of road to Kampli and Daroji with main road.	1573·973	1574·780

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks		Distance from Hubli	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
44	BM.59 / 57 A	125·2	O B.M. Cut on an upright block of stone carved on W. face, 3 feet high, on a foundation of hewn stones at S. side of the top of steps leading down to a large stone-built *bauli* close to junction of main road with branch road to railway station and W. of Kudatini Post Office. It is 65 feet S. of a small temple, 70 feet E. of E. parapet of small culvert on station road, and 280 feet N. of N. gate of old fort of Kudatini village.	1576·061	1576·869
45	BM.60 / 57 A	126·0	O G.T.S. B.M. Cut on an out-cropping black rock 1 foot above ground level on N. margin of road, 2 feet S. of mile-stone No. 11.	1589·667	1590·483
46	BM.61 / 57 A	126·4	O B.M. Cut on an out-cropping black rock, 1 foot above ground level, and 23 feet S. of centre of road, and 301 feet E. of furlong-stone No. 5 between miles 10 and 11.	1590·458	1591·274
a/46	BM.62 / 57 A	127·0	O Cut on a stone embedded in a block of masonry 2 feet 9 inches square with upper surface of stone about 3 inches above ground level and covered over with a masonry pillar 2 feet high. It is distant 48 feet and bears 102° from mile-stone No. 10, 410 feet and 122° from E. end of N. parapet of a masonry bridge of 7 flat spans, and is 90° from a paka well. Two piles of stones 3 feet high are erected on E. and W. sides of bench-mark.	1578·651	1579·461
47	BM.63 / 57 A	128·4	O B.M. Cut on top of furlong-stone No. 5 between miles 8 and 9.	1582·250	1583·063
48	BM 64 / 57 A	129·0	G.T.S. B O M. at base of mile-stone No. 8 at W. end of a masonry bridge of 8 flat spans (O on top of mile-stone is 3·10 feet above lower mark).	1574·466	1575·277
49	BM.65 / 57 A	130·4	O B.M. Cut on top of furlong-stone No. 5 between miles 6 and 7 at middle of a bridge of 5 arches.	1559·130	1559·931
50	BM.66 / 57 A	131·0	G.T.S. B.O.M. at base of mile-stone No. 6 (O B.M. on top of mile-stone is 3·49 feet above lower mark).	1553·969	1554·769
a/50	BM 67 / 57 A	132·9	O Cut on W. guard-stone of N. parapet of culvert near furlong-stone No 1 between miles 4 and 5.	1543·304	1544·097
b/50	BM.68 / 57 A	133·1	A flat upright stone marked 7, 1 foot above ground level, 120 feet N. of road, 380 feet E. of mile-stone No. 4, 423 feet N.W. of bridge through which E. Alipur Irrigation Channel passes, and 12 feet from left bank of channel.	1533·250	1534·038
51	BM.69 / 57 A	133·6	O Cut on an upright stone marked My No. 19 at junction of main road with road going across railway, just opposite municipal toll-bar near furlong-stone No. 4 between miles 3 and 4, and 15 feet S. of C.B. pillar No. 25.	1527·732	1528·519
52	BM.70 / 57 A	134·3	G.T.S. O B.M. Cut on cap of E. abutment of railway girder bridge No. 15 near telegraph post No. 201/3.	1510·231	1511·009

Main-Line 16. (Hubli to Bellary).

Designation of Bench-marks			Distance from Hubli	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/52	BM.71/57 A	135·1	G.T.S. B.M. at Bellary Cantonment Railway Station. Cut on base of home signal.	1525·501	1526·287
53		BM.72/57 A	135·4	G T.S. Standard Bench Mark 1907 at Bellary Cantonments. Situated close to W. compound wall of Protestant Garrison Church, 95 and 122 feet respectively from S.E. and N.E. corners of block No. 24 (Library), 58 and 68 feet respectively from N.W. and S.W. corners of church, and 6 feet away from compound wall.	1520·622	1521·405
	a/53	BM.73/57 A	136·9	G.T.S. B.M. Cut on E. end of stone paving of S. verandah of Superintending Engineer's Office, 3rd Circle P.W.D., Bellary Fort.	1511·817	1512·596
	b/53	BM.74/57 A	137·0	G.T S. B.M. Cut on N. verandah close to the main wall at Post Office, Bellary Fort.	1511·004	1511·782
	c/53	BM.75/57 A	137·3	G.T.S. B.M. Cut on plinth of S. gate-post of E. entrance to Bellary Fort.	1489·397	1490·164
54		BM.8/57 A	137·3	G.T.S. B.M. at Bellary. Cut on a big flooring stone of a paved drain, carrying water of ditch round fort to great tank, on road round glacis of fort, and N.E. of E. fort gate. It is on W. side of road, 70 feet N. of junction with fort main road and 119 feet N.W. of C.B. pillar No. 1.	1480·254	1481·016
	1/54	BM.76/57 A	137·5	G.T.S. B.M. Cut on stone coping of main line platform, opposite Government Railway Police Office at Bellary Railway Station.	1484·203	1484·967

Main-Line 17. (Karwar to Hubli).

Designation of Bench-marks		Distance from Karwar	Description of Bench-marks	Corrected Elevation*	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.1 / 48 J	0·0	G.T.S. □ B.M. at Karwar Embedded to N. of travellers' bungalow, with upper surface of stone 2 feet above ground level, 173 feet and 28° from N.W. corner of travellers' bungalow, 366 feet and 176° from S. lamp-post at quay wall, and 46 feet W. of parapet of a paka well. This bench-mark was fixed in February 1878 as a bench-mark of reference for the tidal observatory.	11·766	11·772
a/1	BM.2 / 48 J	0·1	○ Cut on an out-cropping mass of granite on E. side of road and S. of travellers' bungalow, Karwar, 14 feet S. of S.W. corner of municipal toll-bar at foot of hill, 63 feet S. of furlong-stone No. 0/2. A pillar of bricks set in cement is erected over bench-mark.	10·611	10·617
2	BM.3 / 48 J	0·9	Top of mile-stone No. 1.	96·870	96·922
a/2	BM 4 / 48 J	1·3	○ B.M. Cut on a huge out-cropping rock on N. side of road at foot of hill, 107 feet W. of furlong-stone No. 1/3.	10·984	10·990
3	BM.5 / 48 J	1·9	Top of mile-stone No. 2.	15·280	15·288
a/3	BM.6 / 48 J	2·2	○ G.T.S. B.M. Cut on boulder on N. side of road, 569 feet S. of small temple and 246 feet W. of furlong-stone No. 2/3.	33·273	33·291
4	BM.7 / 48 J	3·2	○ B.M. Cut on an out-cropping rock on S. margin of road, 67 feet W. of centre of S. parapet of culvert No. 27 near furlong-stone No. 3/3.	149·221	149·300
a/4	BM.8 / 48 J	6·8	○ G.T.S. B.M. Cut on out-cropping rock on N. side of road and S. of large *pipal* tree opposite banias' shops of Chendiya village, 42 feet E. of small well on N. side of road, 225 feet W. of centre of N. parapet of culvert No. 71 and 91 feet W. of furlong-stone No. 6/7.	11·392	11·398
5	BM.9 / 48 J	10·6	○ G.T.S. B.M. Cut on rock *in situ* on E. side of road at foot of hill, 177 feet S. of furlong-stone No. 10/5 and 21 feet from centre of road.	14·308	14·315
a/5	BM 10 / 48 J	12·3	○ G.T.S. B.M. Cut on a large rectangular mass of black rock on N. side of road, 10 feet S. of a forest boundary cairn, 361 feet E. of furlong-stone No. 12/2 and 31 feet N. of centre of N. parapet of culvert No. 131.	14·523	14·531

* Deduced from the most recent levelling revision.

Main-Line 17. (Karwar to Hubli).

Designation of Bench-marks		Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
$\frac{b}{5}$	$\frac{BM.11}{48 J}$	15·1	G.T.S. □ B.M. at Hattikeri P.W.D. Inspection Bungalow. Embedded in compound of bungalow, with upper surface of stone 3 feet above ground level, 20 feet and 196° from S.W. corner of bungalow, 83 feet and 136° from S.E. corner of kitchen, 90 feet and 88° from S.E. corner of stables, 61 feet and 77° from parapet of paka well in compound.	18·443	18·453
$\frac{c}{5}$	$\frac{BM.12}{48 J}$	15·1	○ G.T.S. B.M. Cut on capstone at S. end of 1st pier from east, of girder bridge No. 145B over Hattikeri *nadi* near mile-stone No. 15.	16·456	16·465
$\frac{d}{5}$	$\frac{BM.13}{48 J}$	17·5	G.T.S. B.M. ○ Cut on rock *in situ* on N. margin of road, 28 feet W. of furlong-stone No. $\frac{17}{4}$ and 306 feet E. of N.E. corner of wire fencing round Baleguli Forest Naka at junction of main road with branch road to Ankola.	52·893	52·921
$\frac{e}{5}$	$\frac{BM.14}{48 J}$	19·9	G.T.S. ○ B.M. Cut on W. end of S. parapet of bridge No. 173A near furlong-stone No. $\frac{19}{6}$.	105·624	105·681
$\frac{f}{5}$	$\frac{BM.15}{48 J}$	21·7	G.T.S. ○ B.M. Cut on rock *in situ* on N. margin of road, 145 feet W. of centre of N. parapet of bridge No. 188A, 112 feet W. of furlong-stone No. $\frac{21}{5}$, and 18 feet from centre of road.	295·793	295·951
$\frac{g}{5}$	$\frac{BM.16}{48 J}$	23·6	○ B.M. Cut on N. guard-stone of E. wing-wall of S. abutment of bridge No. 197A near furlong-stone No. $\frac{23}{4}$.	111·243	111·302
$\frac{h}{5}$	$\frac{BM.17}{48 J}$	24·5	B.M. ○ Cut on W. guard-stone of W. abutment of bridge No. 201A near furlong-stone No. $\frac{24}{3}$.	70·206	70·243
$\frac{i}{5}$	$\frac{BM.18}{48 J}$	24·8	○ at Rock. Cut on a small out-cropping mass of quartz on W. side of road, 90 feet S. of centre of W. parapet of culvert No. 206, 146 feet W. of furlong-stone No. $\frac{24}{5}$.	66·881	66·917
$\frac{j}{5}$	$\frac{BM.19}{48 J}$	24·9	G.T.S. □ B.M. at Agsur P.W.D. Inspection Bungalow. Embedded in compound of bungalow, with upper surface of stone 3 feet above ground level, 133 feet and 85° from parapet of paka well in compound, 38 feet and 250° from sign-post near gate.	71·244	71·282
$\frac{k}{5}$	$\frac{BM.20}{48 J}$	25·0	G.T.S. ○ B.M. at Agsur P.W.D. Inspection Bungalow. Cut on 1st step from bottom of main or N. entrance.	71·106	71·144
6	$\frac{BM 21}{48 J}$	27·6	○ B.M. Cut on W. guard-stone of E. abutment of bridge No. 226A near furlong-stone No. $\frac{27}{4}$.	41·945	41·968

Main-Line 17. (Karwar to Hubli).

Designation of Bench-marks		Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
7	BM.22 / 48 J	29·4	○ B.M. On E. guard-stone of N. parapet of bridge No. 233 near furlong-stone No. $\frac{29}{2}$.	91·695	91·744
8	BM.23 / 48 J	30·6	○ B.M. On easternmost guard-stone of N. parapet of culvert No. 235A near furlong-stone No. $\frac{30}{4}$.	71·689	71·728
9	BM.24 / 48 J	31·7	○ B.M. On westernmost guard-stone of S. parapet of culvert No. 238B, near furlong-stone No. $\frac{31}{5}$, at junction of main road with road to Kumpta and near Hebbul village.	79·309	79·351
10	BM 25 / 48 J	33·5	○ G.T.S. B.M. On out-cropping mass of rock on N. margin of road, 235 feet E. of centre of N. parapet of culvert No. 250, and 72 feet W. of furlong-stone No. $\frac{33}{3}$.	172·698	172·790
11	BM 26 / 48 J	35·2	○ G.T.S. B.M. On out-cropping mass of rock on E. margin of road, 91 feet N. of centre of W. parapet of culvert No. 260, and 302 feet S. of furlong-stone No. $\frac{35}{1}$ near Sunksal Dak Bungalow.	162·405	162·492
a/11	BM 27 / 48 J	35·7	B.M. ○ On out-cropping mass of rock on S. side of road, 270 feet E. of centre of S. parapet of culvert No. 264, and 220 feet E. of furlong-stone No. $\frac{35}{4}$.	136·510	136·583
b/11	BM 28 / 48 J	37·9	○• B.M. On out-cropping mass of rock on W. margin of road between furlong-stones Nos. $\frac{37}{6}$ and $\frac{37}{7}$, and 314 feet N. of W. pillar of N. abutment of girder bridge No. 274A.	109·325	109·383
c/11	BM 29 / 48 J	38·1	○ B.M. On E. guard-stone of N. return-wall of E. abutment of girder bridge No. 275A near mile-stone No. 38.	112·987	113·047
d/11	BM 30 / 48 J	38·3	○ G.T.S. B.M. On out-cropping mass of rock on S. side of road, 75 feet W. of centre of S. parapet of culvert No. 276A near furlong-stone No. $\frac{38}{1}$.	99·125	99·178
12	BM.31 / 48 J	40·7	○ B.M. On rock *in situ* on S. side of road in bed of a water-course, 7 feet S. of centre of S. parapet of culvert No. 292, and 41 feet S. of furlong-stone No. $\frac{40}{4}$.	172·872	172·964
a/12	BM.32 / 48 J	41·9	G.T.S. □ B.M. at Ramanguli P.W.D. Inspection Bungalow. Embedded in compound of bungalow, with upper surface of stone 5 inches below ground level, 89 feet and 54° from S.E., and 68 feet and 73° from N.E. corners of front verandah, 96 feet and 81° from N.W. corner of bungalow, 73 feet and 114° from N.E. corner of northern out-houses. A referring pillar 3 feet above ground has been built 2 feet N. of bench-mark.	164·499	164·586

Main-Line 17. (Karwar to Hubli).

Designation of Bench-marks			Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
	b/12	BM.33/48 J	miles 42·0	On top of N. guard-stone of N. abutment of bridge No. 308A near furlong-stone No. 41/7.	feet 162·378	feet 162·464
13		BM.34/48 J	44·0	O B.M. On E. guard-stone of E. abutment of bridge No. 320A near furlong-stone No. 43/7.	179·471	179·566
	a/13	BM.35/48 J	46·7	O B.M. On S. guard-stone of W. parapet of bridge No. 335A near furlong-stone No. 46/4.	180·137	180·232
	b/13	BM.36/48 J	49·8	G.T.S. O B.M. On rock *in situ* on N. margin of road, 254 feet W. of centre of W. parapet of culvert No. 350 near furlong-stone No. 49/5.	685·696	686·059
14		BM.37/48 J	51·7	G.T.S. O B.M. On W. wall of cess-pool at S. end of culvert No. 358 near furlong-stone No. 51/4.	1107·420	1108·003
15		BM.38/48 J	53·6	O G.T.S. B.M. On rock *in situ*, out-cropping on E. margin of road, 129 feet S. of centre of W. parapet of culvert No. 369, and 155 feet N. of furlong-stone No. 53/3.	1450·842	1451·605
16		BM.39/48 J	54·3	G.T.S. O B.M. On centre of E. parapet of culvert No. 373, near furlong-stone No. 54/1 opposite Idgunji P.W.D. Inspection Bungalow.	1475·293	1476·069
17		BM.40/48 J	56·2	G.T.S. O B.M. On centre of E. parapet of culvert No. 379 near mile-stone No. 56.	1573·909	1574·735
18		BM.41/48 J	59·7	O G.T.S. B.M. On a big boulder on S. margin of road, 84 feet W. of furlong-stone No. 59/4, and 12 feet N. of a telegraph post.	1808·728	1809·674
19		BM.42/48 J	59·9	O G.T.S. B.M. On N. guard-stone of W. parapet of culvert No. 1 on road to Bankapur at junction with main (Karwar-Bellary) road, near furlong-stone No. 59/5.	1787·732	1788·667
	a/19	BM.43/48 J	59·9	G.T.S. O B.M. at Forest Range Office, Yellapur. On bottom step of front, or S. entrance at junction of main (Karwar-Bellary) road with road to Bankapur.	1789·095	1790·031
	b/19	BM.44/48 J	60·0	G.T.S. O B.M. On stone parapet of paka well on E. side of main road near furlong-stone No. 59/5, and 81 feet W. of centre of road to Yellapur Dak Bungalow.	1779·901	1780·832

Main-Line 17. (Karwar to Hubli).

Designation of Bench-marks		Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1b/19	BM 45/48 J	60·4	G.T.S. □ B.M. at Yellapur P.W.D. Inspection Bungalow. Embedded in compound of sub-divisional office, with upper surface of stone 9 inches below ground level, 87 feet and 287° from N.E., and 58 feet and 307° from N.W. corners of bungalow and 65 feet and 339° from centre of main entrance step, at middle of W. verandah round semi-octagonal projection.	1770·589	1771·515
20	BM 46/48 J	63·1	G.T.S. ○ B.M. On out-cropping rock on E. margin of road, at a bend, 334 feet S. of furlong-stone No. 62/7, and 333 feet E. of furlong-stone No. 62/6.	1826·323	1827·276
21	BM 47/48 J	64·8	G.T.S. ○ B.M. On centre of N. parapet of culvert No. 417 near furlong-stone No. 64/4.	1767·748	1768·669
22	BM 1/48 I	66·8	G.T.S. ○ B.M. On centre of S. parapet of culvert No. 423 near furlong-stone No. 66/4.	1733·512	1734·415
a/22	BM 2/48 I	69·1	G.T.S. ○ B.M. On rock *in situ* on N. side of road, 28 feet N. of centre of N. parapet of culvert No. 427, and 320 feet W. of furlong-stone No. 68/6.	1781·537	1782·465
23	BM 3/48 I	70·8	G.T.S. ○ B.M. On E. guard-stone of S. parapet of culvert No. 434 near furlong-stone No. 70/3.	1785·762	1786·691
24	BM.4/48 I	73·2	G.T.S. ○ B.M. On centre of S. parapet of culvert No. 440 near furlong-stone No. 72/7 (½ mile E. of Kirvatti Dak Bungalow).	1722·374	1723·268
a/24	BM.5/48 I	75·8	○ B.M. On rock *in situ* on W. side of road, 81 feet S. of S.E. corner of Sangtikop police out-post near furlong-stone No. 75/3, and 134 feet W. of paka well on E. side of road.	1806·871	1807·809
b/24	BM.6/48 I	78·0	○ B.M. On stone parapet of paka well on S. side of road near furlong-stone No. 77/4, and close to Kargod P.W.D. Inspection Bungalow.	1786·589	1787·516
c/24	BM.7/48 I	78·0	G.T.S. ○ B.M. On huge boulder on S. side of road, 148 feet W. of centre of S. parapet of culvert No. 12; 379 feet E. of centre of S. parapet of culvert No. 11, and 139 feet W. of furlong-stone No. 77/5.	1784·294	1785·220
25	BM.8/48 I	80·8	G.T.S.○B.M. On centre of W. parapet of culvert No. 22 near furlong-stone No. 80/3.	1760·315	1761·223

Main-Line 17. (Karwar to Hubli).

Designation of Bench-marks			Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
26		BM.9 / 48 I	84·1	G.T.S.○B.M. On projecting course, at plinth level, at W. end of S. parapet of bridge No. 43 near furlong-stone No. 83/5.	1699·798	1700·674
	a/26	BM.10 / 48 I	86·2	G.T.S.○B.M. On N. end of W. parapet of culvert No. 55 near furlong-stone No. 85/6.	1776·388	1777·303
	b/26	BM 11 / 48 I	87·6	G.T.S. □ B.M. at Dastikop Dak Bungalow. Embedded in compound of bungalow, with upper surface of stone about 6 inches below ground level, 92 feet and 332° from S.W., and 90 feet and 292° from N.W. corners of W. verandah of bungalow; 96 feet and 295° from B.M. No. c/26. A referring pillar 3 feet above ground has been built 4 feet S. of bench-mark.	1853·396	1854·350
	c/26	BM.12 / 48 I	87·6	G.T.S. ○ B.M. at Dastikop Dak Bungalow. On stone flooring at N. end of W. verandah close to main wall.	1857·134	1858·090
	d/26	BM.13 / 48 I	88·1	○ G.T.S. B.M. On boulder on N. side of road, 87 feet E. of centre of N. parapet of culvert No. 66, and 50 feet E. of furlong-stone No. 87/5.	1807·423	1808·354
	e/26	BM.14 / 48 I	88·4	G.T.S.○B.M. On projecting course, at plinth level, at E. end of N. parapet of bridge No. 67 over Bennihalla nala near mile-stone No. 88.	1766·883	1767·793
27		BM 46 / 48 M	90·4	G.T.S.○B.M. On centre of N. parapet of culvert No. 79 near mile-stone No. 90.	1857·999	1858·950
	a/27	BM.47 / 48 M	92·9	○ G.T.S. B.M. On huge boulder in field on E. side of road, 521 feet S. of centre of E. parapet of culvert No. 92, and 215 feet N. of furlong-stone No. 92/3.	1875·060	1876·020
	b/27	BM.48 / 48 M	94·5	G.T.S. ○ B.M. On centre of E. parapet of culvert No. 108 near furlong-stone No. 94/1.	1966·374	1967·381
	c/27	BM.49 / 48 M	96·2	B.○M. On top of W. end of S. pier of culvert No. 117 near furlong-stone No. 95/7.	1951·050	1952·049
	d/27	BM.50 / 48 M	99·3	G.T.S. ○ B.M. On capstone of W. pillar of N. abutment of girder bridge No. 129, over Shalmala *nadi* or Someshwarhalla nala, near furlong-stone No. 98/7.	1965·204	1966·210
	e/27	BM.51 / 48 M	101·5	B.M. On step on S. side of upper platform of sluice gate of tank at Heggeri, opposite old Hubli near mile-stone No. 101.	2009·839	2010·868

Main-Line 17. (Karwar to Hubli).

Designation of Bench-marks		Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
$\frac{f}{27}$	$\frac{BM\ 52}{48\ M}$	102·1	G.T.S. ○ B.M. On E. capstone of S. abutment of girder bridge No. 150, over Sathirhalla nala, near furlong-stone No. $\frac{101}{5}$.	1988·232	1989·250
28	$\frac{BM\ 1}{48\ M}$	102·7	G.T.S. □ B.M. at travellers' bungalow, Hubli. Embedded in compound of bungalow, with upper surface of stone about 9 inches below ground level and enclosed by iron railings; 13 feet and 138° from S.W., and 9 feet and 240° from S.E. corners of southern projection of bungalow, 139 feet and 327½° from N.E. corner of stables, and 96 feet and 6° from S.W. corner of kitchen.	2059·286	2060·327

Branch-Line 17A. (Karwar to Mormugao).

Designation of Bench-marks			Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.1 / 48 J	0·0	G.T.S. □ B.M. at Karwar. Embedded to N. of travellers' bungalow, with upper surface of stone 2 feet above ground level, 173 feet and 28° from N.W. corner of travellers' bungalow, 366 feet and 176° from S. lamp-post at quay wall, and 47 feet W. of parapet of a paka well. This bench-mark was fixed in February 1878 as a bench-mark of reference for the tidal observatory.	11·766	11·772
2		BM.48 / 48 J	0·1	○ Engraved on margin capstone of quay wall bordering W. side of road from Karwar pier to Yellapur, 6 inches from edge of quay, 6 inches from S.W. corner of stone, 87 yards S. of W. junction of flooring of pier with quay wall, and 4½ feet S.W. of 5th iron bollard (on cove side) from pier. Another ring has been cut around the circle.	7·002	7·006
3		BM.49 / 48 J	0·1	○ On an angular mass of out-cropping granite, 12 feet E. of E. margin of road leading from Karwar pier to Yellapur, and 67 yards S.E. of W. junction of plank flooring of pier with quay wall. The letters G.T.S. B.M. are engraved on sloping surface of rock just below and N. of circle which is protected by a pillar of bricks set in cement. The summit of rock is 1¾ feet above level of road.	8·700	8·705
4		BM.50 / 48 J	0·2	○ On top of mile-stone No. 0 on S. margin of drain on S. side of road leading from Karwar pier to Karwar town, 320 feet S.E. of N.W. corner of Karwar pier head. The summit of stone is 5 feet above level of road.	11·950	11·956
5		BM 51 / 48 J	0·8	G.T.S. ○ B.M. On E. end of S. abutment of girder bridge over creek near telegraph office at Karwar.	14·784	14·792
6		BM.52 / 48 J	4·9	G.T.S. ○ B.M. at Sadashivgad. On E. parapet of culvert No. 4 opposite vernacular school building.	17·483	17·492
7		BM.53 / 48 J	6·0	G.T.S. ○ B.M. at Chitakulle. On W. parapet of culvert No. 7, E. of temple.	14·848	14·856
8		BM.54 / 48 J	7·3	Top of mile-stone No. 3 from Sadashivgad ghat.	18·211	18·221
9		BM.55 / 48 J	8·3	Top of mile-stone No. 4 from Sadashivgad ghat.	16·678	16·687
10		BM.56 / 48 J	9·5	G.T.S. ○ B.M. On S. end of E. parapet of culvert No. 19.	23·459	23·471
	a / 10	BM 57 / 48 J	10·0	G.T.S. □ B.M. at boundary stone Majali. Test bench-mark No. 1 for Karwar Tidal Station, embedded 20 feet S.E. from a boundary pillar resting on a mound of stones, and 21 feet S. from S. corner of a rest (pillar for burdens). The bench-mark is 3 inches below ground level. The boundary pillar is situated on saddle of a hill, about 7 chains S.W. of a bend in main road from Karwar to Margao, and 40 chains S.E. of a semi-dilapidated Portuguese customs chauki at Pole.	77·365	77·406

Branch-Line 17A. (Karwar to Mormugao).

Designation of Bench-marks		Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
b/10	BM.58/48 J	10·4	G.T.S. □ B.M. at Pole Chauki. Embedded 20 feet from N.E. corner and 18 feet from S.E. corner of building, 24 feet from S E. corner of verandah, and 13 feet from E. wall on which letters B.M. have been cut, and about 3 inches below ground level.	53·052	53·080
c/10	BM 59/48 J	11·8	G.T.S. □ B.M. Test bench-mark No 2 for Karwar Tidal Station. Embedded 3 inches below ground level, 6 feet from both N.W. and N.E. corners of a large stone-rest, and 5 feet from its N. wall on which letters B.M. have been cut. The rest is on N. margin of main road from Karwar to Margao, and about 3 chains S. of a few huts known as Shel village.	46·800	46·825
11	BM 60/48 J	14·8	G T.S. ○ B M. at Lolian. On S. corner of 2nd step from bottom leading up to octagonal masonry platform around a *pipal* tree, N.W. of Narankar's temple.	6·829	6·833
a/11	BM 61/48 J	18·1	G T S. ○ B.M. at Kankao. On S. edge of platform around *pipal* and mango trees, 7 feet from bench-mark No. 12.	21·611	21·622
12	BM 15/48 I	18·1	G.T.S. □ B M. Embedded 3 inches below ground level, 17 feet from S. corner of bottom step leading up to platform, 7 feet from letters B.M. cut on S. face of platform and 16 feet from *pipal* tree in centre of platform. It is situated on N. slope of a small pass 40 chains N. of the Kankao creek, 3½ chains S. of a bridge near junction of old and new roads, and 50 links E. of road from Karwar to Margao.	20·605	20·616
13	BM 16/48 I	22·0	G.T.S. ○ B.M. On E. end of first pier from S. of bridge, ½ a mile N. of Gulin village.	242·179	242·305
14	BM 17/48 I	23·6	G.T.S. ○ B.M. On N. end of W. parapet of bridge, 1 mile S. of Pisune bridge.	386·650	386·851
15	BM 18/48 I	24·3	G T S. ○ B M. On N. end of W. parapet of bridge.	204·236	204·342
16	BM 19/48 I	24·6	G T S. ○ B.M. On S. end of W. parapet of Pisune bridge.	122·955	123·019
17	BM 20/48 I	25·4	G.T S. ○ B M. On cap at S. end of E. parapet of bridge, ¾ of a mile N. of Pisune bridge.	135·102	135·172
18	BM 21/48 I	26·6	Stump of tree at Padi.	282·035	282·182
1/18	BM 22/48 I	29·0	G T.S. ○ B.M. On rock *in situ*, 38 feet S.of Pil G.T.S. Station.	1559·041	1559·849
2/18	BM 23/48 I	29·0	On top of rectangular protecting pillar of Pil G.T. Survey Station, lat. 15° 5′ 54″·64, long. 74° 0′ 22″·56. A principal station of South Konkan Coast Series. (For full description *see* Synoptical Volume).	1570·721	1571·535

Branch-Line 17A. (Karwar to Mormugao).

Designation of Bench-marks		Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
19	BM.24 / 48 I	28·7	G.T.S. ○ B.M. On S. end of W. parapet of bridge, 3 miles S. of Bali village.	167·140	167·227
20	BM.25 / 48 I	31·7	G.T.S. □ B.M. at Bali. Embedded 12 feet from S.W. corner and 8 feet from S.E. corner of Dattatarai's temple, and 8 feet from S. wall on which letters B.M. have been cut. Dattatarai's temple is about 15 chains N. of Bali hamlet.	52·549	52·576
21	BM.26 / 48 I	31·7	G.T.S. ○ B.M. at Bali. On rock *in situ*, near S.W. corner of Dattatarai's temple. The circle mark is 9 inches from W. wall of temple.	52·631	52·658
22	BM.27 / 48 I	32·2	G.T.S. ○ B.M. On S. end of E. parapet of bridge about ½ mile N. of Bali village.	52·762	52·789
23	BM.28 / 48 I	33·4	G.T.S. ○ B.M. at Cuncolin (Kukuli). On S.W. corner of 1st step from bottom at entrance to domed building over cross, W. of road.	32·588	32·605
24	BM.29 / 48 I	34·5	G.T.S. ○ B.M. On W. parapet of bridge near its N. end, 1 mile N. of Cuncolin.	7·431	7·435
25	BM.1 / 48 E	36·2	G.T.S. ○ B.M. On W. end of pier of culvert, ½ mile W. of Chinchoni village.	13·423	13·430
26	BM.2 / 48 E	38·4	G.T.S. ○ B.M. On E. parapet of bridge near its N. end, about 2½ miles S. of Margao Railway Station (W.I.P. Railway).	12·397	12·403
27	BM.3 / 48 E	39·8	G.T.S. ○ B.M. at Navelim. On S. corner of N.E. section of circular masonry seat on W. side of road from Karwar to Margao, and opposite Marie Rozarie Roman Catholic Church.	26·156	26·169
a / 27	BM.4 / 48 E	39·9	G.T.S. □ B.M. at Navelim. Test bench-mark No. 1 for Mormugao Tidal Observatory, and embedded 19 feet from N.W. corner of N. wall of Marie Rozarie Roman Catholic Church, 49 feet from door of same, 94 feet E. of main road and 18 feet from N. wall of church on which letters B.M. have been cut; also 3 chains N.E. of bench-mark No. 27.	25·463	25·476
28	BM.5 / 48 E	40·8	G.T.S. ○ B.M. On platform coping opposite booking office at Margao Railway Station (W.I.P. Railway).	27·326	27·340
1 / 28	BM 6 / 48 E	40·9	G.T.S. ○ B.M. at Margao Railway Station (W.I.P. Railway). On E. side of masonry support of fifth pillar of roof from W. side, and 15 feet S. of bench-mark No. 28.	26·342	26·355
2 / 28	BM.7 / 48 E	41·2	G.T.S. □ B.M. at Margao Masan (Hindu burning place). Test bench-mark No. 2 for Mormugao Tidal Observatory, embedded 8 feet from S.W. corner, and 53 feet from N.W. corner of a wall enclosing a Hindu burning ground, 21 feet from S. corner of entrance and 4 feet from W. wall on which letters B.M. have been cut. The bench-mark is about 3 inches below ground level. The burning ground is situated about 25 chains S. of Roman Catholic Church of Marie Piedad on summit of a flat-topped hill.	70·172	70·208

Branch-Line 17A. (Karwar to Mormugao).

Designation of Bench-marks		Distance from Karwar	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/28	BM.8/48 E	40·9	G.T.S. □ B.M. at Margao Railway Station (W.I.P. Railway). A block of sand stone embedded in masonry opposite N. window (of two) of E. wall of station master's house, 15 feet from N.E. corner, 20 feet from S.E. corner, and 12 feet from letters B.M. cut on E. wall of house; also 139 feet from semaphore, about 9 chains W. of railway station.	27·782	27·796
29	BM.9/48 E	41·8	G.T.S. ○ B.M. On W. end of N. abutment of girder bridge at mile-post No. 16 from Mormugao, and 1 mile N. of Margao Railway Station.	15·132	15·140
30	BM.10/48 E	42·5	G.T.S. ○ B.M. On W. parapet of bridge No. 27.	19·129	19·139
31	BM.11/48 E	45·3	G.T.S. ○ B.M. On E. end of N. abutment of bridge No. 25.	34·170	34·187
32	BM.12/48 E	46·3	G.T.S. ○ B.M. On E. end of S. abutment of bridge No. 24.	37·924	37·943
33	BM.13/48 E	47·5	G.T.S. ○ B.M. On E. end of S. abutment of bridge No. 21.	32·569	32·585
34	BM.14/48 E	49·2	G.T.S. ○ B.M. On E. end of S. abutment of bridge No. 18.	18·436	18·445
35	BM.15/48 E	50·5	G.T.S. ○ B.M. On N. end of E. abutment of bridge, 15 chains E. of mile-post No. 7 from Mormugao.	54·635	54·662
36	BM.16/48 E	53·6	G.T.S. ○ B.M. On S. end of W. abutment of bridge No. 4.	95·662	95·710
37	BM.17/48 E	55·0	G.T.S. ○ B.M. On S. end of W. abutment of bridge No. 1.	21·598	21·609
38	BM.18/48 E	55·4	G.T.S. ○ B.M. On platform coping opposite booking office at Vasco-da Gama Railway Station (W.I.P. Railway).	16·642	16·650
39	BM.19/48 E	55·5	G.T.S. ○ B.M. at Vasco-da Gama Railway Station (W.I.P. Railway). On N.E. corner of masonry plinth of first pillar from W. supporting roof of railway station.	15·877	15·885
40	BM 20/48 E	56·9	G.T.S. ○ B.M. at Mormugao Tidal Observatory. Cut into cement on top of a stone projection inside old fort wall, immediately behind parapet wall, and 11 feet N.W. of first embrasure, close to junction of parapet wall of jetty, and fort parapet.	15·832	15·840
41	BM 21/48 E	56·9	G.T.S. B □ M. A.D. 1884 at Mormugao Tidal Observatory. Embedded in a square masonry well, sunk in a railway platform on which coal is stacked, about 4½ feet below surface of platform, the mouth of well being protected by planks of wood. It is situated 9 feet W. of first embrasure of old fort (counting from jetty end) near iron pile pier, and about 100 yards S.W. of tidal observatory. Its surface is as nearly as possible 16 feet above harbour works datum; and it is the bench-mark of reference of Mormugao Tidal Observatory.	12·297	12·303

Main-Line 18. (Jalarpet to Bangalore).

Designation of Bench-marks		Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 1 / 57 L	0·0	G.T.S. □ B.M. at Jalarpet Junction Railway Station. Embedded opposite S. wall of semaphore tower on Beypore line, 13 and 17 feet respectively from S.E. and S.W. corners of tower, and 33 feet E. of bench-mark No. 74 of line No. 10. The letters B.M. are cut on S. wall of tower, from which bench-mark is 13 feet distant.	1319·482	1320·308
2	BM.76 / 57 L	0·[illegible]	B.○M. at Jalarpet Railway Station. On S. end of passenger platform coping, Bangalore line. (Railway bench-mark).	1321·866	1322·694
3	BM 77 / 57 L	2·6	G.T.S. ○ B.M. On cap at E. abutment of girder opening No. 228 near telegraph post No. 134/11.	1369·938	1370·795
4	BM.78 / 57 L	4·9	G.T.S. ○ B.M. On cap at W. abutment of bridge No. 221 near telegraph post No. 136/19.	1446·302	1447·206
5	BM.79 / 57 L	7·9	G.T.S. ○ B.M. On W. abutment of drain No. 207 near telegraph post No. 139/16.	1607·166	1608·171
6	BM.80 / 57 L	8·5	B.+M. On S. parapet of bridge No. 205 near telegraph post No. 140/8 (Railway bench-mark).	1637·977	1639·000
7	BM.81 / 57 L	9·5	B.+M. On S. parapet of bridge No. 202 near telegraph post No. 141/9 (Railway bench-mark).	1699·041	1700·102
8	BM.82 / 57 L	11·4	B.M. Marked in tar on W. parapet of bridge No. 197 near telegraph post No. 143/6 (Railway bench-mark).	1815·716	1816·848
9	BM.83 / 57 L	12·4	G.T.S. ○ B.M. On N. abutment of bridge No. 189 near telegraph post No. 144/8.	1879·987	1881·157
10	BM.84 / 57 L	13·0	B.○M. On rock at foot of watchman's house at Tiger Rock Semaphore, and almost opposite telegraph post No. 144/19.	1925·794	1926·993
11	BM.85 / 57 L	13·9	B.○M. Marked in tar on S. parapet of bridge No. 178 near telegraph post No. 145/18 (Railway bench-mark).	1994·818	1996·060
12		14·6	Destroyed.	2034·587	2035·852
13	BM.86 / 57 L	14·7	G.T.S. □ B.M. at Mulanur Railway Station. Embedded 8 feet E. of N.E. corner of tank-house, on which letters B.M. are cut; 9 chains N. of station platform and 33 feet from S.E. corner of tank-house.	2027·830	2029·090

Main-Line 18. (Jalarpet to Bangalore).

Designation of Bench-marks		Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
14	BM 87 / 57 L	15·3	B.○M. Marked in tar on W. parapet of bridge No. 173 near telegraph post No. 147/6 (Railway bench-mark).	2048·371	2049·644
a/14	BM.88 / 57 L	16·3	B.+M. On W. parapet of bridge No. 170 near telegraph post No. 148/7.	2086·646	2087·944
15	BM.89 / 57 L	18·2	G.T.S. ○ B.M. On rock between telegraph posts Nos. 150/3 and 150/4.	2136·337	2137·662
16	BM 90 / 57 L	18·9	B.○M. On W. parapet of bridge No. 158 near telegraph post No. 150/15.	2139·259	2140·586
17	BM.91 / 57 L	20·0	G.T.S. ○ B.M. On rock opposite telegraph post No. 151/18.	2171·000	2172·345
18		21·5	Destroyed.	2202·955	2204·320
19	BM 92 / 57 L	22·1	G.T.S. ○ B.M. On passenger platform coping opposite booking office at Kuppam Railway Station.	2238·510	2239·897
20	BM.93 / 57 L	22·1	B.○M. On passenger platform coping at Kuppam Railway Station. (Railway bench-mark).	2239·080	2240·467
21	BM 94 / 57 L	22·1	G.T.S. □ B.M. at Kuppam Railway Station. Embedded opposite E. wall of tank-house, near W. end of station platform, 10 feet from S.E. and N.E. corners of tank-house, and 6 feet from centre of wall on which letters B.M. are cut.	2238·998	2240·385
22	BM.95 / 57 L	23·5	B.○M. On S. parapet of bridge No. 142 near telegraph post No. 155/11.	2282·324	2283·736
23	BM 96 / 57 L	25·9	G.T.S. ○ B.M. On rock opposite a level indicator (marked 1-100 and 1-229) adjoining a wicket opposite telegraph post No. 157/17.	2358·575	2360·032
24	BM.97 / 57 L	28·0	B.□M. On E. parapet of bridge No. 128 near telegraph post No. 160/2 (Railway bench-mark)	2418·210	2419·701
25	BM.98 / 57 L	29·1	G.T.S. ○ B.M. On rock opposite telegraph post No. 161/4.	2477·209	2478·736
26	BM.99 / 57 L	30·5	B.○M. On E. parapet of bridge No. 124 near telegraph post No. 162/13 (Railway bench-mark).	2504·523	2506·065

Main-Line 18. (Jalarpet to Bangalore).

Designation of Bench-marks			Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	$\frac{1}{26}$	BM.100 / 57 L	35·0	On top of rectangular protecting pillar of Yerrakonda G.T. Survey Station, lat. 12° 52′ 9″·83, long. 78° 16′ 43″·66. A principal station of Madras Longitudinal Series. (For full description *see* Synoptical Volume).	3354·723	3356·790
27		BM.101 / 57 L	30·9	B.○M. On S. parapet of bridge No. 123 near telegraph post No. $\frac{163}{1}$.	2487·537	2489·069
28		BM.102 / 57 L	32·8	G.T.S. ○ B.M. On parapet wall of bridge No. 114 near telegraph post No. $\frac{164}{16}$.	2564·482	2566·058
29		BM.103 / 57 L	34·0	B.□M. On N. parapet of bridge No. 110 near telegraph post No. $\frac{166}{3}$ (Railway bench-mark).	2594·175	2595·769
30		BM.104 / 57 L	35·1	G.T.S. ○ B.M. On rock opposite telegraph post No. $\frac{167}{4}$.	2579·405	2580·988
31		BM.105 / 57 L	35·8	G.T.S. □ B.M. at Kamasamudram Railway Station. Embedded opposite E. wall of latrine at S. end of station platform, 12 and 8 feet respectively from S.E. and N.E. corners of latrine, 6 feet from centre of E. wall on which letters B.M. are cut, and 62 feet S. of signal staff.	2577·008	2578·589
32		BM.106 / 57 L	35·8	G.T.S. ○ B.M. On passenger platform coping opposite signal staff at Kamasamudram Railway Station.	2577·742	2579·324
33		BM.107 / 57 L	36·9	G.T.S. ○ B.M. On N. abutment of drain No. 99 near telegraph post No. $\frac{169}{1}$.	2579·174	2580·754
34		BM.108 / 57 L	37·4	B.□M. On E. parapet of bridge No. 98 near telegraph post No. $\frac{169}{10}$ (Railway bench-mark).	2588·762	2590·348
35		BM.109 / 57 L	38·0	G.T.S. ○ B.M. On rock 2 chains S. of telegraph post No. $\frac{170}{3}$.	2606·480	2608·076
36		BM.110 / 57 L	39·0	B.□M. On E. parapet of bridge No. 94 near telegraph post No. $\frac{171}{3}$ (Railway bench-mark).	2601·004	2602·595
37		BM.111 / 57 L	39·9	G.T.S. ○ B.M. On E. parapet of bridge No. 91 near telegraph post No. $\frac{172}{2}$.	2626·631	2628·238
38		BM.112 / 57 L	41·2	B.○M. On E. parapet of bridge No. 88 near telegraph post No. $\frac{173}{7}$ (Railway bench-mark).	2641·392	2643·005

Main-Line 18. (Jalarpet to Bangalore).

Designation of Bench-marks		Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
39	BM.113 / 57 L	42·2	G.T.S. ○ B.M. On rock 1¼ chains N. of telegraph post No. 174/6.	2657·723	2659·343
40	BM.114 / 57 L	43·3	B.○M. On W. end of passenger platform coping at Kolar Road Railway Station. (Railway bench-mark).	2658·580	2660·201
41	BM.115 / 57 L	43·3	G.T.S. □ B.M. at Kolar Road Railway Station. Embedded opposite W. wall of salt godown between goods-shed and station house, 16 and 9 feet respectively from N.W. and S.W. corners of salt godown, and 8 feet from centre of W. wall on which letters B.M. are cut.	2654·211	2655·829
42	BM.116 / 57 L	43·7	G.T.S. ○ B.M. On W. abutment of bridge No. 82 between telegraph posts Nos. 175/16 and 175/17.	2658·949	2660·570
43	BM.117 / 57 L	44·2	B.○M. On S. parapet of bridge No. 79 near telegraph post No. 176/7 (Railway bench-mark).	2678·941	2680·574
44	BM 118 / 57 L	45·9	B.○M. On S. parapet of bridge No. 75 near telegraph post No. 178/1 (Railway bench-mark).	2750·106	2751·783
45	BM 119 / 57 L	47·3	B.○M. On N. parapet of bridge No. 73 near telegraph post No. 179/9 (Railway bench-mark).	2793·872	2795·575
46	BM 120 / 57 L	48·8	B.○M. On rock 2½ chains W. of telegraph post No. 181/1.	2849·148	2850·885
47	BM.121 / 57 L	50·7	G.T.S. □ B.M. at Tyakal Railway Station. Embedded opposite E. wall of gangmen's house at station; 13 and 10 feet respectively from N.E. and S.E. corners of house, 9 feet from letters B.M. cut on wall, and 32 feet N. of edge of low platform at station.	2825·324	2827·046
48	BM.122 / 57 L	51·7	B.○M. On N. parapet of bridge No. 57 at mile-stone No. 184. (Railway bench-mark).	2788·377	2790·077
49		52·8	Destroyed.	2832·665	2834·392
50	BM.123 / 57 L	54·7	G.T.S. ○ B.M. On rock nearly opposite mile-stone No. 187.	2903·225	2904·992
51	BM.1 / 57 K	55·9	B.○M. Marked in tar on N. coping of pier of girder opening No. 48 near telegraph post No. 188/3 (Railway bench-mark).	2842·400	2844·130
52	BM.1 / 57 H	57·8	G.T.S. ○ B.M. On rock at government telegraph post No. 190/1 on N. margin of railway line within enclosure.	2916·498	2918·273

Main-Line 18. (Jalarpet to Bangalore).

Designation of Bench-marks			Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
53		BM.2 / 57 H	58·6	B.O.M. Marked in tar on S. parapet of bridge No. 46 near telegraph post No. 190/14 (Railway bench-mark).	2960·485	2962·287
54		BM.3 / 57 H	60·0	B.O.M. On passenger platform coping at Malur Railway Station. (Railway bench-mark).	2959·937	2961·739
55		BM.4 / 57 H	60·0	G.T.S. □ B.M. at Malur Railway Station. Embedded opposite E. end of S. wall of goods-shed, 6 feet from centre of wall on which letters B.M. are cut, and 34 feet from N.E. corner of goods-shed.	2955·550	2957·349
	1/55	BM.1 / 57 G	65·4	On upper mark-stone of Tirthapalli, G. T. Survey Station, lat. 13° 2′ 20″·36, long. 77° 53′ 15″·89. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	3140·449	3142·361
56		BM.5 / 57 H	62·2	B.O.M. On S. parapet of bridge No. 37 near telegraph post No. 194/10 (Railway bench-mark).	2920·521	2922·299
57		BM.6 / 57 H	63·2	B.O.M. On N. parapet of bridge No. 36 near telegraph post No. 195/10 (Railway bench-mark).	2938·901	2940·690
58		BM.7 / 57 H	64·1	B.O.M. On N. parapet of bridge No. 35 near telegraph post No. 196/9 (Railway bench-mark).	2972·480	2974·292
59		BM.8 / 57 H	65·8	B.O.M. On N. parapet of bridge No. 33 near telegraph post No. 198/3 (Railway bench-mark).	2944·529	2946·324
60		BM.9 / 57 H	67·8	G.T.S. ○ B.M. On rock at telegraph post No. 200/4.	2920·367	2922·147
61		BM.10 / 57 H	69·8	B.O.M. On N. parapet of bridge No. 26 near telegraph post No. 202/3 (Railway bench-mark).	2883·691	2885·446
62		BM.11 / 57 H	70·5	B.O.M. On S. parapet of bridge No. 25 near telegraph post No. 202/14 (Railway bench-mark).	2860·732	2862·473
63		BM.12 / 57 H	71·3	B.□M. On S. parapet of bridge No. 23. (Railway bench-mark).	2819·487	2821·203
64		BM.13 / 57 H	72·2	G.T.S. □ B.M. at Kadgodi Railway Station. Embedded near S.W. corner of latrine at E. end of station, 3 feet from letters B.M. cut on wall of latrine, 5 and 25 feet respectively from S.W. and S.E. corners of same, and 16 feet from platform coping.	2846·143	2847·875

Main-Line 18. (Jalarpet to Bangalore).

Designation of Bench-marks			Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	65	BM.14 / 57 H	72·2	G.T.S. ○ B.M. On passenger platform coping nearly opposite booking office at Kadgodi Railway Station.	2846·399	2848·131
	66	BM 15 / 57 H	73·9	B.○M. On N. parapet of bridge No. 19 near telegraph post No. 206/5 (Railway bench-mark).	2890·939	2892·699
	67	BM 16 / 57 H	74·3	G T S. ○ B.M. On S. parapet of bridge No. 18 near telegraph post No. 206/11.	2873·633	2875·382
	68	BM.2 / 57 G	75·8	G.T.S. ○ B.M. On rock 1½ chains E. of telegraph post No. 208/6.	2918·841	2920·618
	69	BM 3 / 57 G	76·8	B.○M. On S. parapet of bridge No. 13 near telegraph post No. 209/5 (Railway bench-mark).	2921·726	2923·504
	70	BM 4 / 57 G	78·0	G T S. □ B M. at Krishnarajapuram Railway Station. Embedded 3 feet from letters B M. cut on wall, 5 and 13 feet respectively from S W. and S.E. corners of telegraph office, and 20 feet N. of platform coping.	2970·078	2971·886
1/70		BM 5 / 57 G	83·9	On mark-stone on roof of observatory of Bangalore Base-line, N.E. End, G. T. Survey Station, lat. 13° 1′ 56″·05, long. 77° 39′ 16″·23. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	3014·625	3016·461
	71	BM.6 / 57 G	78·0	B.○M. at Krishnarajapuram Railway Station. On lowest footing of basement round signal staff.	2970·187	2971·995
	72	BM 17 / 57 H	78·4	G T S. ○ B.M. On rock at telegraph post No. 210/16.	2949·054	2950·849
	73	BM 18 / 57 H	81·3	B.○M. On N. parapet of bridge No. 6 near telegraph post No. 213/13 (Railway bench-mark).	2967·492	2969·298
	74	BM 7 / 57 G	82·0	B.○M. On N. parapet of bridge No. 5 near telegraph post No. 214/10 (Railway bench-mark).	2972·200	2974·009
	75	BM 19 / 57 H	83·8	G T.S. □ B.M. at Bangalore Cantonment Railway Station. Embedded at E. end of passenger platform in angle formed by ramp and wall adjoining it, 3 feet from letters B.M. cut on wall, 10 feet from signal staff, and 17 feet S. of bench-mark No. 76.	3018·841	3020·679
	76	BM 20 / 57 H	83·8	B.○M. On E. end of passenger platform coping at Bangalore Cantonment Railway Station. (Railway bench-mark).	3022·835	3024·675
1/76		BM 21 / 57 H	85·4	G.T S. Standard Bench Mark 1907 at Bangalore. Situated in compound of Commissariat offices on Cubbon Road, 135 feet S.E. of S.W. corner of building and enclosed in a railed-off space 11½ feet square.	3000·249	3002·076

Main-Line 18. (Jalarpet to Bangalore).

Designation of Bench-marks			Distance from Jalarpet	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	1a/76	BM.22/57 H	85·6	○ On top surface of stone prism embedded on W. margin of Cavalry road, about 2 chains N. of its junction with Cubbon road.	2988·946	2990·766
	2a/76	BM.23/57 H	85·6	○ B.M. On top surface of a stone prism embedded on E. margin of Brigade road, about 3 chains N. of W. corner of Wrenn Bennet and Co.'s premises.	2990·080	2991·901
	3a/76	BM.24/57 H	85·9	G.T.S. ○ B.M. On S. end of 3rd step from bottom of flight of stairs leading into Resident's treasury, Bangalore, at E. end of building.	2973·946	2975·757
	4a/76	BM.25/57 H	86·5	G.T.S. ○ B.M. On N. end of 3rd step leading into Trinity church, Bangalore, and under porch on W. face of building.	2961·475	2963·278
	1b/76	BM 26/57 H	85·6	○ On W. end of top marble step of main entrance, near door-way under porch, on S. side of St. Andrew's Church, Bangalore.	3003·324	3005·153
	2b/76	BM.27/57 H	86·0	G.T.S. ○ B.M. On W. end of top step, of N. flight, at W. end of St. Mark's Church, Bangalore.	2998·190	3000·016
	3b/76	BM.28/57 H	86·5	G.T.S. ○ B.M. at General Post Office, Bangalore. On S. end of 3rd step from bottom at main entrance.	3017·783	3019·621
	4b/76	BM 29/57 H	87·1	3062·80 ○ On a stone slab fixed in a masonry pillar, 18 inches square, projecting 18 inches above ground at N.E. corner of water reservoir, Bangalore. (P.W.D. bench-mark).	3060·941	3062·805
	5b/76	BM.30/57 H	88·8	G.T.S. ○ B.M. at Bangalore City Railway Station. On verandah pavement between E. wall of station building and broad gauge platform coping. It lies also between gentlemen's waiting room and lavatory, 25 feet in a right line from wall of building.	2950·983	2952·780
77			84·0	Destroyed.	3019·393	3021·231
78			85·8	Destroyed.	3111·505	3113·399

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1		0·0	Destroyed.	3111·505	3113·399
2	BM.31 / 57 H	0·0	○ On N.W. corner of Uialdinna Mandapam (shrine) near observatory at S.W. end of Bangalore base-line. The ○ is cut on floor of shrine at N.W. corner, and letters G.T.S. B.M. on sides of stone flags forming floor.	3115·156	3117·052
3	BM 32 / 57 H	0·5	Situated on top of E. kerb-stone of N. parapet of bridge on high road from Bangalore to Nelamangala, and 165 feet W. of mile-stone No. 2. A P.W.D. bench-mark marked in tar thus B.M. / T on kerb-stone is 1·58 feet below top.	3066·099	3067·965
4		2·0	Destroyed.	3019·393	3021·231
5	BM.33 / 57 H	2·3	G.T.S. ○ B.M. On S. end of W. abutment of railway bridge No. 389.	3023·414	3025·257
a/5	BM 34 / 57 H	2·8	B.M. ○ Marked in tar on stone fixed at foot of S.W. pillar of level crossing No. 5. (Railway bench-mark).	3027·772	3029·618
6	BM 35 / 57 H	4·0	G T S ○ B M. On E. abutment of railway bridge No 406 opposite telegraph post No. 218/13.	2962·660	2964·466
7	BM 36 / 57 H	4·5	G.T.S. ○ B.M. at Bangalore City Railway Station. On passenger platform coping in front of Madras Railway booking office.	2949·754	2951·552
8	BM 37 / 57 H	4·9	G.T.S. ○ B.M. On S. parapet of bridge on road from Bangalore to Magadi, close to railway crossing and about ½ mile S. of B.M. No. 7.	2936·621	2938·411
9	BM 38 / 57 H	5 9	G T S. ○ B.M. On N. parapet of bridge, 66 feet E. of mile-stone No. 3 from Bangalore, on road to Magadi.	2831·094	2832·820
10	BM 39 / 57 H	7·9	G.T S. ○ B M. On rock *in situ* on N. margin of road and at S.W. end of a tank, 211 feet E. of mile-stone No. 5 from Bangalore.	2894·864	2896·629
11	BM.40 / 57 H	9·3	G.T.S. ○ B.M. On a large stone slab on N. margin of road, 203 feet S.E. of furlong-stone No. 5/7 from Bangalore.	2944·400	2946·195
12	BM 41 / 57 H	12·3	G.T.S. ○ B.M. On rock *in situ*, 52 feet S. of centre of road, 74 feet S. of furlong-stone No. 3-4/10 and 660 feet S.W. by W. of boundary pillar of Bangalore and Magadi taluks.	2868·265	2870·014
13	BM.42 / 57 H	12·5	B.○M. On rock *in situ* on N. side of road, 175 feet W. of furlong-stone No. 5-6/10 from Bangalore.	2863·569	2865·315

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks			Distance from Bangalore		Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
	a/13	BM.43/57 H	14·9	G.T.S. □ B.M.	Embedded 3½ feet N. of mile-stone No. 12 from Bangalore on N. side of road. The letters B.M. have been cut on back of mile-stone.	2794·126	2795·829
14		BM.44/57 H	15·9	G.T.S. ○ B.M.	On rock *in situ* on N. side of road, 35 feet from its centre and 155 feet N.E. by E. of mile-stone No. 13 from Bangalore.	2815·679	2817·398
15		BM.45/57 H	18·2	○ G.T.S. B.M.	On rock *in situ*, 15 feet N. of furlong-stone No. 3–4/16, and 15 feet W. of centre of road.	2820·601	2822·321
16		BM.46/57 H	19·9	G.T.S. ○ B.M.	On rock *in situ*, 9 feet from its extremity which borders the road on N. side, and 15 feet from centre of road; 192 feet W. of mile-stone No. 17 from Bangalore.	2714·771	2716·429
17		BM.47/57 H	20·8	B.○M.	On rock *in situ* on N. side of road, 18 feet from its centre, and 55 feet N.E. of mile-stone No. 18 from Bangalore.	2544·536	2546·090
	a/17	BM.48/57 H	22·2	G.T.S. □ B.M.	Embedded at N. parapet of bridge over Arkavati river at mile-stone No. 19 from Bangalore.	2488·329	2489·848
18		BM.49/57 H	24·0	G.T.S. ○ B.M.	On rock *in situ* on N. side of road, 18 feet from its centre, and 206 feet N.E. of furlong-stone No. 2–3/22 from Bangalore.	2770·602	2772·294
19		BM.50/57 H	25·3	G.T.S. ○ B.M.	at Bachenhatti Police Station. On N.W. corner of lowest step, 22 feet to S. of road.	2724·559	2726·223
20		BM.51/57 H	27·9	G.T.S. ○ B.M.	On rock *in situ*, 50 feet N. of centre of road and 162 feet W. of mile-stone No. 25 from Bangalore.	2644·798	2646·413
21		BM.52/57 H	29·8	G.T.S. ○ B.M.	On rock *in situ* on N. side of road, and 63 feet W. of mile-stone No. 27 from Bangalore.	2790·306	2792·010
22		BM.53/57 H	30·8	G.T.S. ○ B.M.	On rock on N. side of road, 200 feet E. of mile-stone No. 28 from Bangalore.	2852·959	2854·698
	a/22	BM.54/57 H	31·7	G.T.S. □ B.M.	at Magadi. Embedded in floor of entrance to Amildar's kachahri with its top surface flush with floor, 5 feet N.W. of S.E. corner of entrance and 2 feet from E. wall.	2854·395	2856·135
23		BM.55/57 H	32·8	G.T.S. ○ B.M.	On rock *in situ* on N. side of road, 74 feet N.W. of furlong-stone No. 7–8/30. A huge rock lies about 10 feet N. of bench-mark and temple of Someshwar lies just opposite it.	2958·970	2960·774

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
24	BM 56 / 57 H	34·0	G.T.S. ○ B.M. On rock *in situ* on N side of road, 244 feet N.W. of mile-stone No. 31 from Bangalore.	2925·449	2927·233
25	BM 57 / 57 H	35·6	G T S. ○ B M. On rock *in situ* on N. margin of road and 115 feet N.W. of furlong-stone No. 5–6/33 from Bangalore.	2933·256	2935·041
26	BM 58 / 57 H	36·6	G.T.S. ○ B.M. On coping of N. parapet of bridge near furlong-stone No. 5–6/34 from Bangalore.	2807·115	2808·824
27	BM 8 / 57 G	37·1	G.T S. ○ B.M. On N. parapet of bridge, 88 yards W. of furlong-stone No. 1–2/35 from Bangalore.	2770·435	2772·121
28	BM.9 / 57 G	38·3	G.T.S. ○ B.M. On N. wing slab of causeway over road channel at W. side of road, and 132 feet S.E. of furlong-stone No. 3–4/36 from Bangalore.	2752·716	2754·391
29	BM.10 / 57 G	40·3	B.○M. On plinth of S.W. parapet of a culvert, 256 feet S E of furlong-stone No. 3–4/38 from Bangalore.	2681·613	2683·242
30	BM 11 / 57 G	42·9	G.T.S. ○ B.M. On a boulder *in situ* on N. side of road, 10 feet S.W. of mile-stone No. 40 from Bangalore.	2632·231	2633·830
31	BM.12 / 57 G	45·8	G T.S. ○ B.M. On a boulder *in situ* on N. side of it, 4 feet S. of furlong-stone No. 7–8/43 from Bangalore.	2562·151	2563·708
32	BM 13 / 57 G	46·7	G.T.S. □ B.M. at Kunigal Travellers' Bungalow. Embedded in N. verandah of building, flush with floor, 4 feet to left of door, and 9 inches away from wall.	2552·345	2553·896
33	BM.14 / 57 G	47·6	○ G.T S. B.M. On top of E. kerb-stone near N. parapet of bridge, 770 yards E of mile-stone No. 45 from Bangalore.	2519·636	2521·167
34	BM.1 / 57 C	50·1	G T S. ○ B.M. On rock *in situ* on N. margin of road, 336 feet E. of furlong-stone No. 1–2/48 from Bangalore.	2484·780	2486·292
35	BM 2 / 57 C	51·1	○ G T S. B M. On W. kerb-stone of N. parapet of bridge No. 79 near furlong-stone No. 1–2/49 from Bangalore.	2462·546	2464·045
1/35	BM.3 / 57 C	52·4	On top of circular pillar of Rangaswamibetta, G.T. Survey Station, lat. 13° 1′ 26″·52, long. 76° 58′ 17″·54. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	2993·969	2995·791

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks			Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
36		BM.4 / 57 C	51·6	○ G.T.S. B.M. On S.W. kerb-stone of N.W. parapet of a bridge, the S.W. one of two, 44 yards N.E. of furlong-stone No. 5–6/49 from Bangalore.	2456·233	2457·728
37		BM 1 / 57 D	52·2	G.T.S. ○ B.M. On rock *in situ* on S. margin of road, 171 feet W. of furlong-stone No. 1–2/50 and close to junction of road from Amritur.	2518·609	2520·144
38		BM.2 / 57 D	54·2	G.T.S. ○ B.M. On rock *in situ* on S. side of road, 330 feet S.W. of furlong-stone No. 1–2/52 from Bangalore.	2498·902	2500·425
39		BM 3 / 57 D	54·5	○ G.T.S. B.M. On W. kerb-stone of S. parapet of a culvert, 135 feet W. of furlong-stone No. 4–5/52 from Bangalore.	2490·759	2492·278
40		BM.4 / 57 D	57·0	G.T.S. ○ B.M. On coping of S. wing of causeway, at N. side of road, 200 feet W. of mile-stone No. 5½ from Bangalore.	2446·211	2447·702
41		BM 5 / 57 D	58·2	G.T.S. ○ B.M. On rock *in situ* on S. margin of road, 251 feet S.W. of furlong-stone No. 1–2/56 from Bangalore.	2476·900	2478·410
42		BM 6 / 57 D	59·3	○ G.T.S. B.M. at Yediyur Travellers' Bungalow. On W. end of bottom step at N. entrance.	2458·396	2459·895
	a/42	BM 7 / 57 D	59·3	G.T.S. □ B.M. at Yediyur Travellers' Bungalow. Embedded in N. verandah, flush with floor: it is to E. of door and 10 inches away from wall.	2460·539	2462·039
43		BM.8 / 57 D	59·8	○ G.T.S. B.M. On W. kerb-stone of N. parapet of bridge over Shimsha river about ½ mile E. of mile-stone No. 57 from Bangalore.	2403·634	2405·099
44		BM.9 / 57 D	60·2	G.T.S. ○ B.M. On W. parapet of culvert No. 1 on branch road to Mayisandra and close to furlong-stone No. 1–2/58 from Bangalore.	2408·982	2410·450
45		BM.10 / 57 D	61·9	G.T.S. ○ B.M. On S.E. extremity of rock *in situ*, on S. side of a group of boulders on N. of road, and 56 feet E. of furlong-stone No. 7–8/59 from Bangalore.	2477·833	2479·344
46		BM.11 / 57 D	63·1	G.T.S. ○ B.M. On N. end of rock on S. margin of road and 79 feet S.E. of furlong-stone No. 1–2/61 from Bangalore.	2521·565	2523·105

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
47	BM 12 / 57 D	64·9	G.T.S. B.M. ○ On rock *in situ* on N. margin of road, 70 feet N.E. by E. of furlong-stone No. 7–8/62 from Bangalore.	2524·837	2526·379
48	BM.13 / 57 D	65·4	G.T.S. ○ B.M. On rock *in situ* on N. margin of road, and 264 feet E. of furlong-stone No. 3–4/63 from Bangalore.	2559·181	2560·744
a/48	BM 14 / 57 D	65·9	G.T.S. ○ B.M. On E. end of lower step at S. entrance to Nelligere travellers' bungalow.	2548·656	2550·212
49	BM 15 / 57 D	66·1	G.T.S. ○ B.M. at Nelligere. On a stone embedded in N. parapet wall, flush with its top surface, 2 feet above road level; it is on W. side of recess at E. end of a large bridge over Vira Vaishnavi river, and immediately over 1st pier on E. side.	2538·716	2540·266
50	BM 16 / 57 D	67·2	G.T.S. ○ B.M. On rock, at N.E. extremity of a rocky rise, situated in triangular plot of ground formed by junction of road from Nagamangala, 19 feet W. of road from Nagamangala to Nelligere and 130 feet S. of furlong-stone No. 1–2/65 from Bangalore.	2609·112	2610·705
1/50	BM 17 / 57 D	68·6	G.T.S. ○ B.M. On coping at E. end of pier of culvert on road from Nagamangala to Nelligere, and 308 yards N. of mile-stone No. 34 from French Rocks.	2623·046	2624·648
2/50	BM 18 / 57 D	70·4	G.T.S. ○ B.M. On rock *in situ* on W. margin of road and 132 yards S. of mile-stone No. 32 from French Rocks.	2644·457	2646·071
3/50	BM 19 / 57 D	72·8	On top of rectangular protecting pillar of Haltibetta, G.T. Survey Station, lat 12° 52′ 45″·02, long. 76° 46′ 5″·51. A principal station of Madras Longitudinal Series. (For full description *see* Synoptical Volume).	3045·688	3047·548
51	BM.20 / 57 D	67·9	G.T.S. ○ B.M. On rock on S. side of road, 280 feet S.E. of furlong-stone No. 7–8/65 from Bangalore.	2564·179	2565·745
52	BM 21 / 57 D	70·0	○ G.T.S. B.M. On rock *in situ* at S.W. extremity of a swell of ground covered with boulders, situated to N. of road, and 26 feet N.E. of mile-stone No. 67 from Bangalore.	2669·184	2670·814
53	BM 22 / 57 D	73·5	G.T.S. ○ B.M. On a block of granite embedded in S. parapet of Nagatihalli bridge No. 21 over W. spring of arch, 25 feet S.E. of furlong-stone No. 4–5/71 from Bangalore.	2670·097	2671·727
54	BM.23 / 57 D	75·5	G.T.S. ○ B.M. On rock, 26 feet N. of centre of road, 156 feet W. of furlong-stone No. 4–5/73, and 171 feet N.E. of N.E. corner of Rangaswami temple.	2782·390	2784·089

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Bangalore	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
55	BM.24 / 57 D	76·0	G.T.S. ○ B.M. On top of mile-stone No. 73 from Bangalore.	2725·425	2727·089
56	BM.25 / 57 D	77·0	G.T.S. ○ B.M. On rock *in situ*, 94 feet N.E. of mile-stone No. 74 from Bangalore, and 44 feet N. of centre of road.	2812·893	2814·611
57	BM.26 / 57 D	78·5	G.T.S. ○ B.M. On rock *in situ*, 43 feet S.S.E. of furlong-stone No. 4–5/76 from Bangalore.	2798·534	2800·243
58	BM.27 / 57 D	79·7	G.T.S. ○ B.M. On E. end of bottom step at back or north entrance to Hiresave Travellers' Bungalow.	2804·151	2805·863
59	BM.28 / 57 D	79·7	G.T.S. □ B.M. at Hiresave Travellers' Bungalow. Embedded in W. verandah of building between the two bath-rooms on W. side, 1 foot from S. wall and 4 feet from centre of top step.	2805·085	2806·798
60	BM.29 / 57 D	80·7	G.T.S. ○ B.M. On rock *in situ* at N.E. extremity of a rocky rise, and 278 feet S.W. of furlong-stone No. 5–6/78 from Bangalore.	2874·991	2876·747
61	BM.30 / 57 D	82·9	G.T.S. B.○M. On rock nearly midway between road and a cluster of out-cropping rocks lying 22 feet N.N.E.; 178 feet E. of mile-stone No. 80 from Bangalore.	2883·892	2885·653
62	BM.31 / 57 D	83·9	G.T.S. ○ B.M. On rock *in situ* on S. margin of road, at N. extremity of a rocky rise running N. and S. and 53 feet S.E. of mile-stone No. 81 from Bangalore.	2968·130	2969·942
63	BM.32 / 57 D	86·4	G.T.S. ○ B.M. On rock *in situ* on N. margin of road, 309 feet E. of furlong-stone No. 4–5/84 from Bangalore.	2902·314	2904·089
64	BM.33 / 57 D	88·4	G.T.S. ○ B.M. On rock *in situ*, 44 feet S. of a small tank and 249 feet S.W. of furlong-stone No. 4–5/86 from Bangalore.	2845·067	2846·807
a/64	BM.34 / 57 D	90·8	G.T.S. B.○M. On N. end of step at E. entrance to Shatalamma temple, 419 feet N.E. of mile-stone No. 88 from Bangalore.	2737·927	2739·602
65	BM.35 / 57 D	92·4	G.T.S. ○ B.M. On rock *in situ*, 136 feet S.S.E. of a cluster of large rocks, 553 feet E. of furlong-stone No. 5–6/90, and 106 feet S.W. of furlong-stone No. 4–5/90 from Bangalore.	2783·324	2785·029
a/65	BM.36 / 57 D	94·0	Channaraypatna, G.T. Survey Station, lat. 12° 54′ 1″·84, long. 76° 23′ 28″·75. An intersected point of Madras Longitudinal Series, and consists of a circle and dot engraved on N. wall of highest bastion in N.W. quarter of fort.	2790·270	2791·979
66	BM.37 / 57 D	94·3	G.T.S. ○ B.M. at Channaraypatna Travellers' Bungalow. On S. end of bottom step at E. entrance to building.	2779·200	2780·903

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/66	BM 38 / 57 D	94·3	G.T.S. □ B.M. at Channaraypatna Travellers' Bungalow. Embedded in floor of E. verandah of building to left of doorway, 1 foot from wall, 9 feet from S.W. corner and 12 feet from S.E. corner of verandah.	2782·275	2783·979
67	BM 39 / 57 D	95·3	G.T.S. ○ B.M. On rock *in situ* on S. bank of road drain, and 284 feet N.W. by W. of furlong-stone No. 3–4/93 from Bangalore.	2833·272	2835·005
68	BM.40 / 57 D	96·6	G.T.S. ○ B.M. On rock at N. extremity of a small group of rocks, 62 feet S.W. by W. of furlong-stone No. 7–8/94 from Bangalore.	2882·233	2883·993
69	BM 41 / 57 D	98·4	G.T.S. ○ B.M. On rock *in situ*, the southern one of a group of low rocks, and 363 feet S.W. of furlong-stone No. 5–6/96 from Bangalore.	2836·217	2837·949
a/69	BM 42 / 57 D	99·8	G.T.S. ○ B.M. On rock, 50 feet E. of door of Keshodeo temple, which is 660 yards S.E. of mile-stone No. 97 from Bangalore.	2843·523	2845·259
70	BM.43 / 57 D	100·7	G.T.S. ○ B.M. On rock, 244 feet N. of furlong-stone No. 7–8/98, 211 feet S.E. of a road tunnel, and 442 feet S.S.E. of mile-stone No. 98 from Bangalore.	2927·537	2929·322
71	BM.44 / 57 D	101·7	G.T.S. ○ B.M. On rock *in situ*, 52 feet N.E. by E. of mile-stone No. 99 from Bangalore.	2965·331	2967·139
72	BM 45 / 57 D	104·0	G.T.S. ○ B.M. On rock *in situ* running N. and S., 10 feet from its southern extremity, and 127 feet N.W. of furlong-stone No. 2–3/102 from Bangalore.	3016·656	3018·495
73	BM.46 / 57 D	104·6	G.T.S. ○ B.M. at Dandiganhalli Travellers' Bungalow. On E. end of bottom step at N. entrance to building.	3011·352	3013·188
a/73	BM 47 / 57 D	104·6	G.T.S. ○ B.M. at Dandiganhalli Travellers' Bungalow. On a granite stone embedded in N. verandah to right of entrance to same, 2 feet from N. wall, 9 feet from S.W. corner of verandah, and 11 feet from door leading into principal room.	3012·647	3014·484
74	BM.48 / 57 D	105·8	○ G.T.S. B.M. On top of mile-stone No. 103 from Bangalore.	3019·979	3021·820
75	BM.49 / 57 D	106·8	○ G.T.S. B.M. On top of mile-stone No. 104 from Bangalore.	2990·940	2992·763
76	BM.50 / 57 D	107·8	○ G.T.S. B.M. On top of mile-stone No. 105 from Bangalore.	3017·189	3019·028
77	BM 51 / 57 D	109·8	○ G.T.S. B.M. On top of mile-stone No. 107 from Bangalore.	3059·796	3061·661

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks			Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
78		BM.52 / 57 D	110·4	○ G.T.S. B.M. On W. kerb-stone of S. parapet of bridge, 61 feet S.W. of furlong-stone No. 5–6/108 from Bangalore.	3073·478	3075·351
79		BM.53 / 57 D	112·8	G.T.S. ○ B.M. On S.E. extremity of a large rock *in situ*, 3 feet high and 43 feet N. of road, and 44 feet N.E. of mile-stone No. 110 from Bangalore.	3186·513	3188·456
80		BM 54 / 57 D	114·0	○ G.T.S. B.M. On S.W. parapet of a culvert, on road tunnel, and 207 feet S.E. of furlong-stone No. 2–3/112 from Bangalore.	3024·977	3026·821
81		BM.5 / 57 C	115·2	○ G.T.S. B.M. On top of mile-stone No. 113 from Bangalore.	3111·723	3113·617
82		BM.6 / 57 C	117·2	G.T.S. B.○M. at Hassan, Deputy Commissioner's Office. On top step, 8 inches to right of first pillar at E. end of S. verandah of building.	3105·931	3107·822
	a / 82	BM.7 / 57 C	117·4	Hassan D.P.W. Office. Stone in front, or S. of Executive Engineer's office, 62 feet from S.W. and 71 feet from S.E. corners of building. (D.P.W. Irrigation bench-mark).	3094·636	3096·520
83		BM.8 / 57 C	117·4	G.T.S. □ B.M. at Hassan Travellers' Bungalow. Embedded in S. verandah of building and situated in front of window of E. room, 2 feet from wall and 4 feet from N.E. corner of verandah.	3092·625	3094·507
84		BM.55 / 57 D	117·8	G.T.S.○B.M. On top of mile-stone No. 115 from Bangalore.	3076·597	3078·470
85		BM.56 / 57 D	118·0	G.T.S. ○ B.M. at Hassan hospital. On middle step of eastern flight at S. side of building, and 22 feet W. of S.E. corner.	3090·880	3092·761
86		BM.57 / 57 D	118·8	G.T.S.○B.M. On top of mile-stone No. 116 from Bangalore.	3030·645	3032·490
87		BM.58 / 57 D	119·8	G.T.S.○B.M. On top of mile-stone No. 117 from Bangalore.	3071·543	3073·416
88		BM.59 / 57 D	120·8	G.T.S.○B.M. On top of mile-stone No. 118 from Bangalore.	3009·192	3011·027
89		BM.60 / 57 D	121·8	G.T.S.○B.M. On top of mile-stone No. 119 from Bangalore.	3030·367	3032·215
90		BM.61 / 57 D	122·3	G.T.S. B.○M. On S. parapet of a large bridge over Yagachi river, and 106 feet S.E. of furlong-stone No. 4–5/120 from Bangalore.	2999·068	3000·896
91		BM.62 / 57 D	124·8	G.T.S.○B.M. On top of mile-stone No. 122 from Bangalore.	3141·698	3143·613

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
92	BM 1 / 48 P	125·8	G.T.S.○B.M. On top of mile-stone No. 123 from Bangalore.	3054·512	3056·377
93	BM.2 / 48 P	126·8	G.T.S.○B.M. On top of mile-stone No. 124 from Bangalore.	3083·916	3085·799
94	BM 3 / 48 P	127·8	G.T.S.○B.M. On top of mile-stone No. 125 from Bangalore.	2995·637	2997·466
95	BM.4 / 48 P	128·8	G.T.S.○B.M. On top of mile-stone No. 126 from Bangalore.	3063·349	3065·220
96	BM 5 / 48 P	129·1	○ G.T.S. B.M. On rock *in situ* on N. margin of road, 318 feet E. of furlong-stone $\frac{3-4}{127}$ from Bangalore, and 25 feet W. of a large rock also on N. margin of road.	3082·718	3084·601
97	BM.6 / 48 P	129·6	G.T.S. □ B.M. at Palya Travellers' Bungalow. Embedded in N. verandah of building, 8 feet to left of doorway of principal room, 2 feet from wall, 9 feet from S.E. corner, and 13 feet from N.E. corner of verandah.	3123·637	3125·545
98	BM 7 / 48 P	129·8	G.T.S.○B.M. On top of mile-stone No. 127 from Bangalore.	3133·034	3134·947
99	BM 8 / 48 P	130·8	G.T.S.○B.M. On top of mile-stone No. 128 from Bangalore.	3227·106	3229·077
100	BM 9 / 48 P	132·8	G.T.S.○B.M. On top of mile-stone No. 130 from Bangalore.	3299·244	3301·259
101	BM 10 / 48 P	133·8	G.T.S.○B.M. On top of mile-stone No. 131 from Bangalore.	3320·822	3322·850
102	BM.11 / 48 P	134·8	○ B.M. On rock *in situ* on S. side of road, and 192 feet N.W. of mile-stone No. 132 from Bangalore.	3313·799	3315·823
103	BM 12 / 48 P	135·7	G.T.S. ○ B.M. On rock *in situ*, 191 feet E. of mile-stone No. 133 from Bangalore.	3263·932	3265·925
104	BM 13 / 48 P	136·3	○ G.T.S. B.M. On S. parapet of a culvert, at junction of road from Belur, 22 feet S. of index post and between furlong-stones Nos. $\frac{4-5}{134}$ and $\frac{5-6}{134}$ from Bangalore.	3153·004	3154·929
105	BM 14 / 48 P	137·8	G.T.S.○B.M. On S. parapet of a culvert, and 61 feet S.W. of mile-stone No. 135 from Bangalore.	3016·425	3018·267
106	BM 15 / 48 P	138·7	G.T.S.○B.M. On top of mile-stone No. 136 from Bangalore.	3113·709	3115·610
107	BM.16 / 48 P	139·8	○ G.T.S. B.M. On S. parapet of a culvert, and 158 feet W. of mile-stone No. 137 from Bangalore.	3043·188	3045·046

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks			Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
108		BM.17 / 48 P	140·6	○ G.T.S. B.M. On rock on border of drain on S. margin of road, and 124 feet S.W. by W. of furlong-stone No. 7–8/138 from Bangalore.	3022·933	3024·779
109		BM 18 / 48 P	140·7	G.T.S.○B.M. On top of mile-stone No. 138 from Bangalore.	3006·154	3007·990
110		BM.19 / 48 P	141·5	○ G.T.S. B.M. On top of furlong-stone No. 6–7/139 from Bangalore.	2948·247	2950·047
111		BM.20 / 48 P	141·5	G.T.S. ○ B.M. On N. side of W. abutment of Sakleshpur girder bridge over Hemavati river on second pillar from W.	2952·509	2954·312
112		BM.21 / 48 P	141·7	G.T.S.○B.M. On top of mile-stone No. 139 from Bangalore.	2945·148	2946·946
113		BM.22 / 48 P	142·0	G.T.S. □ B.M. at Sakleshpur Travellers' Bungalow. Embedded in N. verandah and midway between two front windows of W. room, 21 inches from wall, 11 feet from N W. corner of room, and 20 feet from inner corner of N.W. pillar.	2999·551	3001·383
114		BM 23 / 48 P	142·6	G.T.S.○B.M. On top of mile-stone No. 140 from Bangalore.	3046·781	3048·642
115		BM.24 / 48 P	143·6	G.T.S.○B.M. On top of mile-stone No. 141 from Bangalore.	3117·524	3119·431
116		BM.25 / 48 P	144·6	G.T.S.○B.M. On top of mile-stone No. 142 from Bangalore.	3170·809	3172·749
117		BM.26 / 48 P	145·3	○ G.T.S. B.M. On top of stone fixed at foot of index post at junction of road from Subrahmanya, about ¼ mile E. of mile-stone No. 143 from Bangalore.	3173·350	3175·291
	a/117	BM.27 / 48 P	145·7	G.T.S. ○ B.M. at Manjarabad Fort. On a stone slab of S. embrasure of N.W. salient angle, 17 feet S.S.E. of B.M. No. 1/117.	3414·257	3416·345
	1/117	BM.28 / 48 P	145·7	On ⊙ of Manjarabad G.T. Survey Station, lat. 12° 54′ 58″·49, long. 75° 45′ 31″·44. A secondary station of Madras Longitudinal Series. (For full description *see* Synoptical Volume).	3418·394	3420·485
118		BM 29 / 48 P	145·6	G.T.S.○B.M. On top of mile-stone No. 143 from Bangalore.	3106·410	3108·313
119		BM.30 / 48 P	146·6	G.T.S.○B.M. On top of mile-stone No. 144 from Bangalore.	2893·821	2895·597
120		BM.31 / 48 P	147·4	G.T.S. B.○M. On top of mile-stone No. 145 from Bangalore.	2709·598	2711·263

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
121	BM 32 / 48 P	147·9	G.T.S. ○ B.M. Embedded in N. parapet of a bridge across Kemphole river over centre of first arch from W., 11 feet E. of W. abutment and 111 feet S.W. of furlong-stone No. 4–5/146 from Bangalore.	2626·720	2628·337
122	BM 33 / 48 P	148·2	G.T.S. ○ B.M. On rock *in situ*, 59 feet N.E. of furlong-stone No. 6–7/146 from Bangalore.	2618·225	2619·837
123	BM.34 / 48 P	148·5	G T S. B ○ M. On top of mile-stone No. 146 from Bangalore.	2662·388	2664·027
124	BM.35 / 48 P	149·5	G.T.S.○B.M. On top of mile-stone No. 147 from Bangalore.	2909·622	2911·416
125	BM 36 / 48 P	150·5	G.T.S.○B.M. On top of mile-stone No. 148 from Bangalore.	2850·396	2852·157
126	BM 37 / 48 P	151·4	G.T.S. □ B.M. at Marahalli Travellers' Bungalow. Embedded in centre of E. verandah of building, 3 feet from wall, with its top surface flush with floor.	2755·618	2757·323
127	BM 38 / 48 P	151·6	G T S. ○ B.M. On E. end of bottom step of platform at entrance to Marahalli toll-house on N. side of road.	2691·702	2693·367
128	BM.39 / 48 P	152·3	G T S. ○ B M. On rock *in situ*, 77 feet S.E. of furlong-stone No. 7–8/150 from Bangalore and 39 feet S.E. of a culvert.	2612·986	2614·602
129	BM 40 / 48 P	152·9	G.T S. ○ B.M. On rock *in situ* on E margin of road opposite to a huge boulder on other side, 87 feet N. of furlong-stone No. 4–5/151 from Bangalore, and 33 feet S. of a stream.	2484·594	2486·131
130	BM 41 / 48 P	154·4	G.T S. ○ B M. On a boulder on N. side of road, and 56 feet N.E. of mile-stone No. 152 from Bangalore.	2091·784	2093·080
131	BM 42 / 48 P	156·3	G.T.S ○B.M. On top of mile-stone No. 154 from Bangalore.	1534·882	1535·833
132	BM 43 / 48 P	157·3	G.T.S. ○ B.M. On rock *in situ* on right side of a stream, 15 feet N. of N. parapet of a culvert, and 66 feet N.E. of mile-stone No. 155 from Bangalore.	1287·213	1288·011
133	BM 44 / 48 P	158·3	○ G T S. B.M. On rock *in situ*, 56 feet W. of mile-stone No. 156 from Bangalore.	1070·585	1071·249
a/133	BM 45 / 48 P	159·5	G.T.S. ○ B.M. On a stone embedded in top of pillar on N. wing of W. abutment of wooden bridge over Kemphole river.	876·217	876·760

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks			Distance from Bangalore	Description of Bench-marks		Corrected Elevation	
	Geodetic	Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
	b/133	BM.46/48 P	159·5	G.T.S. ○ B.M.	at Kempakal D.P.W. Bungalow. On S. end of second step from bottom at E. entrance to building.	908·621	909·184
	c/133	BM.47/48 P	159·5	G.T.S. □ B.M.	at Kempakal D.P.W. Bungalow. Embedded in E. verandah, 4 feet N.E. of S.E. corner of building, 11 feet N.W. of S.E. corner of verandah, and 2 feet from wooden wall.	911·492	912·057
134		BM.48/48 P	161·0	G.T.S. ○ B.M.	On top of a boulder in bed of a mountain stream, 4 feet S.W. of W. end of S. parapet of a culvert, and 115 feet W. of furlong-stone No. 6-7/159 from Bangalore.	850·071	850·597
135		BM 49/48 P	162·0	○ G.T.S. B.M.	On rock *in situ* on S. margin of road at foot of a mango tree, 84 feet W. of furlong-stone No. 6-7/160 from Bangalore.	763·205	763·678
136		BM.50/48 P	162·6	G.T.S. B.M. ○	On stone basement at Mysore face of boundary pillar, Mysore-Mangalore, dated 27th November 1883. Close to it is a second boundary pillar separating Manjarabad and Uppinangadi taluks.	723·711	724·160
137		BM.51/48 P	163·5	G.T.S. ○ B.M.	On N. parapet of a wooden bridge, 156 feet E. of furlong-stone No. 60½ from Mangalore.	647·070	647·471
138		BM.52/48 P	165·1	G.T.S. ○ B.M.	On top of mile-stone No. 59 from Mangalore.	523·306	523·631
139		BM.53/48 P	165·1	G.T.S. ○ B.M.	On W. abutment of a wooden bridge, 325 feet S.W. of mile-stone No. 59 from Mangalore.	518·770	519·092
140		BM.54/48 P	166·1	G.T.S. ○ B.M.	On N. parapet of a bridge, 225 yards E. of mile-stone No. 58 from Mangalore.	415·060	415·318
141		BM.55/48 P	166·2	G.T.S. ○ B.M.	On top of mile-stone No. 58 from Mangalore.	417·739	417·998
142		BM.56/48 P	167·1	G.T.S. ○ B.M.	On top of mile-stone No. 57 from Mangalore.	402·422	402·672
143		BM.57/48 P	167·3	G.T.S. ○ B.M.	On W. abutment of Kabbinhaolla iron girder bridge, 396 yards W. of mile-stone No. 57 from Mangalore.	379·532	379·768
144		BM.58/48 P	168·1	G.T.S. ○ B.M.	On top of mile-stone No. 56 from Mangalore.	384·595	384·834
145		BM 59/48 P	169·1	G.T.S. ○ B.M.	On top of mile-stone No. 55 from Mangalore.	367·501	367·729
146		BM 60/48 P	169·7	G.T.S. ○ B.M.	On centre of S. parapet of culvert, 220 yards S.W. of furlong-stone No. 54½ from Mangalore.	364·407	364·633
147		BM.61/48 P	170·0	G.T.S. ○ B.M.	On top of mile-stone No. 54 from Mangalore.	355·158	355·379

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
a/147	BM 62/48 P	170·6	G.T.S. □ B.M.	at Siradi Travellers' Bungalow. Embedded flush with floor, in centre of S. verandah of building, immediately under window, 2 feet from wall and 16 feet from inner corner of S.E pillar of verandah.	380·153	380·389
148	BM 63/48 P	171·0	G.T.S. ○ B.M.	On top of mile-stone No. 53 from Mangalore.	366·088	366·315
149	BM 64/48 P	171·9	G.T.S. ○ B.M.	On N. parapet of culvert, 376 feet E. of mile-stone No. 52 from Mangalore.	331·828	332·034
150	BM 65/48 P	172·0	G.T.S. ○ B.M.	On top of mile-stone No. 52 from Mangalore.	347·233	347·448
151	BM 66/48 P	172·9	G.T.S. ○ B.M.	On S.W. abutment of a wooden bridge, 264 feet E. of mile-stone No. 51 from Mangalore.	332·471	332·677
152	BM 67/48 P	173·5	G.T.S. ○ B.M.	On top of furlong-stone No. 50½ from Mangalore.	328·927	329·131
153	BM 68/48 P	174·0	G.T.S. ○ B.M.	On top of mile-stone No. 50 from Mangalore.	330·493	330·698
154	BM 69/48 P	175·0	G.T.S. ○ B.M.	On top of mile-stone No. 49 from Mangalore.	316·658	316·854
155	BM 70/48 P	176·0	G.T.S. ○ B.M.	On top of mile-stone No. 48 from Mangalore.	330·158	330·363
156	BM 71/48 P	177·0	G.T.S. ○ B.M.	On top of mile-stone No. 47 from Mangalore.	410·805	411·060
157	BM 72/48 P	178·0	G.T.S. ○ B.M.	On top of mile-stone No. 46 from Mangalore.	390·680	390·922
158	BM.73/48 P	179·5	G.T.S. ○ B.M.	On top of furlong-stone No. 44½ from Mangalore.	332·079	332·285
159	BM 74/48 P	180·0	G.T.S. ○ B.M.	On top of mile-stone No. 44 from Mangalore.	344·920	345·134
160	BM 75/48 P	181·0	G.T.S. ○ B.M.	On top of mile-stone No. 43 from Mangalore.	292·742	292·923
161	BM 76/48 P	183·0	G.T.S. ○ B.M.	On top of mile-stone No. 41 from Mangalore.	328·018	328·221
162	BM 77/48 P	183·0	G.T.S. □ B.M.	Embedded 6 feet E. of mile-stone No. 41 from Mangalore.	322·882	323·082
163	BM 78/48 P	184·0	G.T.S. ○ B.M.	On top of mile-stone No. 40 from Mangalore.	280·906	281·079
164	BM 79/48 P	184·5	G.T.S. ○ B.M.	On top of furlong-stone No. 39½ from Mangalore.	241·320	241·469

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks			Distance from Bangalore		Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
165		BM 80 / 48 P	185·0	G.T.S. ○ B.M.	On top of mile-stone No. 39 from Mangalore.	218·280	218·415
166		BM.81 / 48 P	185·9	G.T.S. ○ B.M.	On top of mile-stone No. 38 from Mangalore.	125·535	125·612
167		BM.82 / 48 P	186·9	G.T.S. ○ B.M.	On top of mile-stone No. 37 from Mangalore.	116·075	116·146
168		BM.83 / 48 P	187·9	G.T.S. ○ B.M.	On top of mile-stone No. 36 from Mangalore.	129·401	129·481
169		BM.84 / 48 P	188·9	G.T.S. ○ B.M.	On rock *in situ*, 3 feet E. of mile-stone No. 35 from Mangalore.	128·051	128·130
170		BM 85 / 48 P	189·9	G.T.S. ○ B.M.	On top of mile-stone No. 34 from Mangalore.	104·846	104·911
171		BM.86 / 48 P	190·8	G.T.S. ○ B.M.	On boulder *in situ*, 173 feet E. of mile-stone No. 33 from Mangalore.	121·649	121·724
	a / 171	BM.87 / 48 P	191·5	G.T.S. □ B.M.	at Uppinangadi Travellers' Bungalow. Embedded in N.W. corner of S.E. verandah of building, 2 feet from wall.	111·013	111·081
172		BM 88 / 48 P	193·0	G.T.S. ○ B.M.	On top of mile-stone No. 31 from Mangalore.	99·468	99·529
173		BM.89 / 48 P	193·6	G.T.S. ○ B.M.	On N. parapet of culvert, 572 yards E. of mile-stone No. 30 from Mangalore.	192·732	192·851
174		BM.90 / 48 P	194·0	G.T.S. ○ B.M.	On top of mile-stone No. 30 from Mangalore.	233·524	233·668
175		BM.91 / 48 P	195·0	G.T.S. ○ B.M.	On top of mile-stone No. 29 from Mangalore.	215·264	215·396
176		BM 92 / 48 P	196·0	G.T.S. ○ B.M.	On top of mile-stone No. 28 from Mangalore.	145·400	145·489
177		BM.93 / 48 P	198·0	G.T.S. ○ B.M.	On top of mile-stone No. 26 from Mangalore.	161·186	161·285
178		BM.94 / 48 P	198·5	G.T.S. ○ B.M.	On top of furlong-stone No. 25½ from Mangalore.	207·263	207·390
179		BM.95 / 48 P	199·0	G.T.S. ○ B.M.	On top of mile-stone No. 25 from Mangalore.	242·270	242·419
180		BM.96 / 48 P	200·0	G.T.S. ○ B.M.	On top of mile-stone No. 24 from Mangalore.	208·135	208·263
181		BM 97 / 48 P	200·9	G.T.S. ○ B.M.	On top of mile-stone No. 23 from Mangalore.	163·167	163·267

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
182	BM 98 / 48 P	202·9	G T S. ○ B.M. On top of mile-stone No. 21 from Mangalore.	209·246	209·374
183	BM.99 / 48 P	203·6	○ G T S. B M. On rock *in situ* in road drain on N. side of road, 98 feet W. of telegraph post No. 1055, and 638 yards E. of mile-stone No. 20 from Mangalore.	181·762	181·874
184	BM.100 / 48 P	204·9	G.T S. ○ B M. On top of mile-stone No. 19 from Mangalore.	117·592	117·664
185	BM 101 / 48 P	205·1	G T S. ○ B.M. on rock *in situ* on S.W. margin of main road from Hassan to Mangalore, 121 feet W. of telegraph post No. 1079 and 206 feet S.E. of furlong-stone No. 18¾ from Mangalore.	119·656	119·729
1 / 185	BM 102 / 48 P	208·2	On top of rectangular protecting pillar of Ballamale G.T. Survey Station, lat 12° 48′ 32″·03, long. 75° 5′ 18″·28. A principal station of Madras Longitudinal Series. (For full description *see* Synoptical Volume).	813·588	814·087
186	BM.103 / 48 P	206·3	○ G T.S. B M. On rock *in situ* on S. margin of road at foot of cutting, 87 feet N.W. of telegraph post No. 1101, and 726 yards W. of mile-stone No. 18 from Mangalore.	135·604	135·687
187	BM.104 / 48 P	206·9	G.T S. ○ B M. On top of mile-stone No. 17 from Mangalore.	75·482	75·528
a / 187	BM 105 / 48 P	207·9	G T S. □ B.M. at Panemangaluru Travellers' Bungalow. Embedded in W. verandah and immediately in front of window, 2 feet from wall, and midway between two doors.	63·073	63·112
188	BM 106 / 48 P	209·0	G.T S. ○ B M. On top of mile-stone No. 15 from Mangalore.	50·064	50·095
189	BM 107 / 48 P	211·0	G.T S. ○ B M. On top of mile-stone No. 13 from Mangalore.	30·641	30·660
190	BM 1 / 48 L	212·0	G.T.S. ○ B.M. On top of mile-stone No. 12 from Mangalore.	58·256	58·292
191	BM 2 / 48 L	213·0	G T S. ○ B M. On coping of N. parapet of culvert, 132 feet W. of mile-stone No. 11 from Mangalore.	54·727	54·761
192	BM 3 / 48 L	214·0	G.T.S. □ B.M. Embedded at S E. extremity of a laterite hill, 18 feet N of mile-stone No. 10 from Mangalore, 76 feet S E. of telegraph post No. 1217 and 135 feet W. of Maripalle, a hamlet of Faringipet.	55·191	55·225
193	BM 4 / 48 L	214·0	G T.S. ○ B.M. On top of mile-stone No. 10 from Mangalore.	55·763	55·797
194	BM 5 / 48 L	215·0	G T S. ○ B.M. On ledge of a large rock firmly embraced in roots of a clump of banian trees at foot of rise of ground on which Faringipet travellers' bungalow stands; on N. margin of road, and 133 feet E. of mile-stone No. 9 from Mangalore.	38·264	38·287

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks			Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/194	BM.6/48 L	215·1	G.T.S. □ B.M. at Faringipet Travellers' Bungalow. Embedded in floor of S. verandah, 5 feet to left of centre door and 11 inches from wall.	87·705	87·759
195		BM.7/48 L	215·2	G.T.S. ○ B.M. On W. abutment of iron girder bridge at Faringipet, 17 feet S.E. of furlong-stone No. 8¾ from Mangalore.	26·339	26·355
196		BM.8/48 L	216·9	G.T.S. ○ B.M. On top of mile-stone No. 7 from Mangalore.	21·437	21·450
197		BM.9/48 L	217·9	G.T.S. ○ B.M. On top of mile-stone No. 6 from Mangalore.	17·151	17·162
198		BM.10/48 L	218·9	○ G.T.S. B.M. On top of mile-stone No. 5 from Mangalore.	17·422	17·433
199		BM.11/48 L	219·9	G.T.S. ○ B.M. On top of mile-stone No. 4 from Mangalore.	86·499	86·552
200		BM.12/48 L	220·2	G.T.S. B.○M. On top of furlong-stone No. 3¾ from Mangalore.	83·494	83·545
201		BM.13/48 L	220·9	G.T.S. ○ B.M. On top of mile-stone No. 3 from Mangalore.	60·720	60·757
202		BM.14/48 L	221·9	G.T.S. ○ B.M. On top of mile-stone No. 2 from Mangalore.	98·036	98·096
203		BM.15/48 L	223·1	G.T.S. B.○M. at Hampangatta, Mangalore. On coping stone of circular pedestal of triple branched lamp-post at junction of roads.	94·109	94·167
	1/203	BM.16/48 L	223·4	On mark-stone on top of pillar of Mangalore G.T. Survey Station, lat. 12° 52′ 14″·76, long. 74° 50′ 42″·71. A principal station of Madras Longitudinal Series. (For full description *see* Synoptical Volume).	185·454	185·568
204		BM.17/48 L	223·3	G.T.S. ○ B.M. On S. end of lowest step at W. entrance to Mangalore second grade college.	80·344	80·393
205		BM.18/48 L	223·9	G.T.S. ○ B.M. at Port Signal Tower, Mangalore. On floor or base of S.W. arch of flag staff tower in old fort.	64·021	64·060
	a/205	BM.19/48 L	223·9	Port Signal Tower, Mangalore. On flag staff tower at foot of mast, in line with top of S.W. arch, in old fort.	79·479	79·528
206		BM.20/48 L	223·9	G.T.S. ∧ B.M. at Mangalore. On a block of hard stone embedded flush with level of ground, on S. side of road leading from municipal office on quay to Church of England at S.W. corner of cantonment parade ground and nearly midway between office and church. It is 103 feet W. by N. of nearest point of base of Port Signal Flag Staff Tower (in old fort), nearly 20 feet below it, and 130 feet S.W. of nearest corner of building occupied by Government telegraph office in 1871-72. This bench-mark is surmounted by a pillar 2·68 feet high having its N. face marked with letters B.M. and an arrow.	39·915	39·940

Branch-Line 18A. (Bangalore to Mangalore).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
207	BM.21 / 48 L	224·0	G.T.S. ○ B.M. at Municipal office, Mangalore. On W. end of lower step of S. entrance to building.	6·914	6·918
a / 207	BM.22 / 48 L	224·0	On upper step of S. entrance to Municipal office, Mangalore, in 1871-72.	7·418	7·423
b / 207	BM 23 / 48 L	224·1	At Messrs. Alston and Co's office, Mangalore. On plinth of wall, 31 feet S. of W. gateway of house occupied by above firm in 1871-72.	6·493	6·497
208	BM.24 / 48 L	224·1	G.T.S. ⋀ B.M. at Master Attendant's office, Mangalore. On W. end of stone door step of office (also known by names, look-out house, and rest-house) on Mangalore quay; it is 87 feet S.W. of entrance to sea custom house.	6·629	6·633
209	BM 25 / 48 L	224·2	G.T.S. ⋀ B.M. On S. end of fourth step from top and ninth from bottom of sea custom house landing place, Mangalore, 67 feet S W. by W. of entrance to custom house, and 63 feet N. by W. of master attendant's office on the quay.	2·458	2·460
210	BM 26 / 48 L	224·2	G.T.S. □ B M. at Custom house, Mangalore. Embedded in floor of W. verandah facing sea: it is 7 feet to left of centre of doorway and 10 inches from wall.	7·507	7·512

Main-Line 19. (Bangalore to Bellary).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1		0·0	Destroyed.	3111·505	3113·399
2	BM.15/57 G	1·7	T at base of mile-stone No. 4, the summit of which is 2·63 feet above mark.	3049·458	3051·311
a/2	BM 16/57 G	2·0	G.T.S. O B.M. On 9th stone step of Gunta (tank) at Subadar's Chhattram.	2994·599	2996·420
3	BM.17/57 G	2·7	T at base of mile-stone No. 5, the summit of which is 2·75 feet above mark.	2989·179	2990·995
4	BM.18/57 G	3·7	T at base of mile-stone No. 6, the summit of which is 2·78 feet above mark.	3012·247	3014·077
5	BM.19/57 G	4·4	G.T.S. O B.M. On rock *in situ* on E. side of road and near 6th furlong-stone between mile-stones Nos. 6 and 7.	2999·702	3001·525
6	BM 20/57 G	4·7	T at base of mile-stone No. 7, the summit of which is 2·27 feet above mark.	2955·325	2957·121
a/6	BM.21/57 G	4·7	G.T.S. O B.M. On 3rd stone step from top of a paka tank, on W. side of road, and near first furlong-stone between mile-stones Nos. 7 and 8.	2940·536	2942·324
b/6	BM.22/57 G	5·1	G.T.S. O B.M. On 2nd stone step from top of a paka tank, on W. side of the road, and opposite the Chhattram at Daserhalli.	2924·714	2926·492
7	BM.23/57 G	5·7	T at base of mile-stone No. 8, the summit of which is 2·85 feet above mark.	2915·484	2917·252
8	BM.24/57 G	7·7	T at base of mile-stone No. 10, the summit of which is 3·00 feet above mark.	2829·696	2831·413
9	BM.25/57 G	8·7	T at base of mile-stone No. 11, the summit of which is 2·88 feet above mark.	2800·200	2801·899
10	BM.26/57 G	8·7	G.T.S. O B.M. On rock *in situ* on W. side of road, 207 feet beyond mile-stone No. 11.	2805·938	2807·640
11	BM 27/57 G	9·4	B.O.M. On top of guard-stone on W. side of bridge No. 17 over Arkavati river.	2751·931	2753·598
12	BM.28/57 G	9·6	G.T.S. O B.M. On rock *in situ*, close to a large rock on E. side of road and opposite Ramapan's Chhattram.	2760·080	2761·752
13	BM.29/57 G	9·7	T at base of mile-stone No. 12, the summit of which is 2·45 feet above mark.	2776·944	2778·626
14	BM.30/57 G	11·7	T at base of mile-stone No. 14, the summit of which is 2·85 feet above mark.	2826·309	2828·021
15	BM.31/57 G	11·9	G.T.S. O B.M. On rock *in situ*, close to road and opposite Harsan Gontai village.	2839·401	2841·120

Main-Line 19. (Bangalore to Bellary).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
16	BM.32 / 57 G	13·6	⊤ at base of mile-stone No. 16, the summit of which is 2·28 feet above mark.	2869·993	2871·728
17	BM.33 / 57 G	13·7	G.T.S. ○ B.M. On stone slab at corner of a small paka tank (Rola Venkatramana Chetty's) at Nelamangala.	2873·605	2875·343
18	BM 34 / 57 G	13·9	G.T.S. ○ B.M. On stone step of Nelamangala travellers' bungalow, 0·70 foot below level of verandah on side next road.	2898·660	2900·413
19	BM.35 / 57 G	14·6	○ On top of mile-stone No. 17.	2917·664	2919·428
20	BM.36 / 57 G	15·6	Top of mile-stone No. 18.	2953·162	2954·948
21	BM 37 / 57 G	16·6	⊤ at base of mile-stone No. 19, the summit of which is 3·20 feet above mark.	2914·066	2915·825
22	BM 38 / 57 G	17·6	⊤ at base of mile-stone No. 20, the summit of which is 2·92 feet above mark.	2854·653	2856·376
23	BM 39 / 57 G	18·6	⊤ at base of mile-stone No. 21, the summit of which is 3·21 feet above mark.	2816·939	2818·628
24	BM 40 / 57 G	19·2	G T S. ○ B M. On stone in 3rd step of a small paka tank (Venkatadasappah's) at side of road.	2812·913	2814·608
25	BM 41 / 57 G	19·6	B.○M. On top of mile-stone No. 22.	2837·905	2839·615
26	BM.42 / 57 G	20·6	G T S: ○ B.M. On rock *in situ* on same side of road as mile-stone No. 23, and about 7 yards from it.	2915·286	2917·040
27	BM.43 / 57 G	21·6	⊤ at base of mile-stone No. 24, the summit of which is 3·30 feet above mark.	2884·697	2886·433
28	BM 44 / 57 G	22·6	B ○M. On top of mile-stone No. 25.	2875·405	2877·135
29	BM 45 / 57 G	22·9	B.○M. On rock *in situ* on E side of road and about midway between 2nd and 3rd furlong-stones in 25th to 26th mile.	2932·172	2933·936
30	BM 46 / 57 G	23·6	⊤ at base of mile-stone No. 26, the summit of which is 3·04 feet above mark.	2976·132	2977·920
31	BM 47 / 57 G	24·2	G T S ○ B.M. On stone in centre of embankment of tank at Mugaleli, 6 feet from wing wall of bridge over escape channel, and 7 feet from side of road.	2933·462	2935·224
32	BM 48 / 57 G	25·5	B.○M. On top of mile-stone No. 28.	2976·675	2978·463
33	BM.49 / 57 G	26·5	B.○M. On top of mile-stone No. 29.	2999·340	3001·138

Main-Line 19. (Bangalore to Bellary).

Designation of Bench-marks			Distance from Bangalore	Description of Bench-marks		Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
34		BM.50 / 57 G	27·9	G.T.S. ○ B.M.	On stone step at E. door of Dobbspet Travellers' Bungalow.	3039·182	3041·004
35		BM.51 / 57 G	30·6	T	at base of mile-stone No. 33, the summit of which is 2·00 feet above mark.	2858·899	2860·611
36		BM.52 / 57 G	31·0	G.T.S. ○ B.M.	On rock *in situ*, close to 4th furlong-stone between mile-stones Nos. 33 and 34.	2836·265	2837·963
37		BM 53 / 57 G	31·6	G.T.S. ○ B.M.	On rock *in situ* on side of road and 132 feet short of 1st furlong-stone between mile-stones Nos. 34 and 35.	2825·198	2826·886
38		BM.54 / 57 G	32·5	T	at base of mile-stone No. 35, the summit of which is 4·45 feet above mark.	2799·977	2801·650
39		BM.55 / 57 G	33·5	T	at base of mile-stone No. 36, the summit of which is 6·60 feet above mark.	2810·867	2812·544
40		BM.56 / 57 G	33·6	G.T.S. ○ B.M.	On rock *in situ* on W. side of road at Hirchalli village.	2798·357	2800·026
41		BM.57 / 57 G	34·0	G.T.S. ○ B.M.	On rock *in situ* on W. side of road at Hirchallipaliam village.	2801·905	2803·577
42		BM 58 / 57 G	34·5	T	at base of mile-stone No. 37, the summit of which is 6·25 feet above mark.	2765·466	2767·116
43		BM.59 / 57 G	35·5	T	at base of mile-stone No. 38.	2712·697	2714·316
44		BM.60 / 57 G	36·5	T	at base of mile-stone No. 39.	2715·331	2716·948
45		BM.61 / 57 G	37·2	G.T.S. ○ B.M.	On rock *in situ*, near 6th furlong-stone between mile-stones Nos. 39 and 40.	2725·581	2727·205
46		BM.62 / 57 G	38·5	T	at base of mile-stone No. 41.	2737·627	2739·258
47		BM.63 / 57 G	39·8	B.○M.	On covering stone of culvert, at entrance gate of house opposite Tumkur travellers' bungalow.	2677·008	2678·602
	a / 47	BM.64 / 57 G	39·9		Stone step of front verandah of Tumkur travellers' bungalow.	2680·381	2681·979
	b / 47	BM.65 / 57 G	39·9	G.T.S. ○ B.M.	On stone step at W. entrance to Tumkur travellers' bungalow.	2677·642	2679·238
48		BM.66 / 57 G	41·6	B.○M.	On guard-stone of bridge No. 116 near mile-stone No. 44.	2650·816	2652·392
49		BM.67 / 57 G	42·2		at Tumkur. Stone platform of sundial in front of Deputy Commissioner's house; the point is 14 inches E. of pedestal of dial and about midway between N. and S. edges of platform.	2695·432	2697·035

Main-Line 19. (Bangalore to Bellary).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
50	BM.68 / 57 G	42·8	G.T.S. ○ B.M.	On stone step of a small pakka tank opposite mile-stone No. 45.	2654·457	2656·035
51	BM.69 / 57 G	44·7	B ○ M.	On flat covering stone outside parapet of bridge No. 124.	2626·656	2628·215
52	BM.70 / 57 G	45·7	G.T.S. ○ B.M.	On covering stone outside parapet of bridge No. 128, near mile-stone No. 48.	2617·244	2618·795
53	BM 71 / 57 G	46·7	T	at base of mile-stone No. 49, the summit of which is 4·85 feet above mark.	2618·225	2619·776
54	BM 72 / 57 G	48·7	T	at base of mile-stone No. 51, the summit of which is 4·95 feet above mark.	2653·721	2655·291
55	BM.73 / 57 G	49·8	T	at base of mile-stone No. 52, the summit of which is 5·60 feet above mark.	2708·822	2710·422
56	BM 74 / 57 G	51·0	G.T.S. ○ B.M.	On rock *in situ* on E. side of road, and between 2nd and 3rd furlong-stones in 53rd to 54th mile.	2744·245	2745·863
57	BM.75 / 57 G	51·8	B ○ M.	On top of mile-stone No. 54.	2679·517	2681·097
58	BM 76 / 57 G	53·3	B.○M.	On rock *in situ*, 20 paces N. of roadway and 40 paces from 4th furlong-stone, between mile-stones Nos. 55 and 56.	2678·741	2680·318
a / 58	BM 77 / 57 G	54·3	B.○M.	On step of Nelhal travellers' bungalow.	2630·936	2632·486
b / 58	BM 78 / 57 G	55·6	G T S. ○ B.M.	On stone slab at W. side of a mandapam of Sibi Narasaumma's temple, about 10 paces from road side.	2588·480	2590·005
c / 58	BM 9 / 57 C	57·3	G.T S. ○ B M.	On rock *in situ* at base of a conspicuous brick telegraph post, about 10 paces to W. of road, and nearly opposite 4th furlong-stone, between mile-stones Nos. 59 and 60.	2494·978	2496·448
59	BM 10 / 57 C	57·8	T	at base of mile-stone No. 60, the summit of which is 4·08 feet above mark.	2398·750	2400·155
60	BM 11 / 57 C	59·6	G.T.S. ○ B.M.	On rock *in situ* on E. side of road, and near 7th furlong-stone, between mile-stones Nos. 61 and 62.	2362·192	2363·573
61	BM 12 / 57 C	60·5	G.T S ○ B.M.	On covering stone of bridge near 6th furlong-stone between mile-stones Nos. 62 and 63.	2354·485	2355·861
62	BM 13 / 57 C	61·8	T	at base of mile-stone No. 64, the summit of which is 4·65 feet above mark.	2287·864	2289·199
63	BM.14 / 57 C	62·8	B.○M.	On rock *in situ* on W. side of road and nearly opposite mile-stone No. 65.	2278·694	2280·024

Main-Line 19. (Bangalore to Bellary).

Designation of Bench-marks			Distance from Bangalore	Description of Bench-marks		Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
	a/63	BM.15/57 C	64·5	The floor of front verandah of Marlagaudapalliam travellers' bungalow.		2273·539	2274·867
64		BM.16/57 C	68·8	T	at base of mile-stone No. 71, the summit of which is 4·22 feet above mark.	2180·326	2181·589
65		BM.17/57 C	69·1	B.O.M.	On covering stone outside parapet of bridge between 2nd and 3rd furlong-stones in 71st to 72nd mile.	2158·578	2159·829
66		BM.18/57 C	70·5	G.T.S. O B.M.	On stone outside parapet of bridge near 6th furlong-stone, between mile-stones Nos. 72 and 73.	2152·133	2153·378
67		BM.19/57 C	71·7	G.T.S. O B.M.	On stone outside E. parapet of bridge near mile-stone No. 74.	2161·489	2162·737
68		BM.20/57 C	72·0	G.T.S. O B.M.	On covering stone of bridge near 2nd furlong-stone, between mile-stones Nos. 74 and 75.	2129·232	2130·462
	a/68	BM.21/57 C	72·8	G.T.S. O B.M.	On stone step of E. verandah of Sira travellers' bungalow.	2175·800	2177·058
69		BM.22/57 C	73·5	G.T.S. O B.M.	On rock *in situ* on W. side of road, about 30 paces from bridge and nearly opposite 6th furlong-stone, between mile-stones Nos. 75 and 76.	2126·059	2127·287
70		BM.23/57 C	73·8	T	at base of mile-stone No 76.	2150·283	2151·525
71		BM.24/57 C	75·8	Top of mile-stone No. 78.		2056·871	2058·057
72		BM.25/57 C	76·3	B.O.M.	On rock *in situ* on W. side of road, and about midway between 4th and 5th furlong-stones in 78th to 79th mile.	2047·250	2048·430
73		BM.26/57 C	78·0	G.T.S. O B.M.	On covering stone of bridge between 1st and 2nd furlong-stones in 80th to 81st mile.	2033·989	2035·160
74		BM.27/57 C	79·8	G.T.S. O B.M.	On stone in side of a pakka tank at Tavarekere village, close to road and near mile-stone No. 82.	1999·031	2000·181
75		BM.28/57 C	81·0	G.T.S. O B.M.	On covering stone of bridge at E. side of road near 2nd furlong-stone, between mile-stones Nos. 83 and 84.	1996·212	1997·359
76		BM.29/57 C	81·7	T	at base of mile-stone No. 84.	2007·345	2008·498
77		BM.30/57 C	82·9	B.O.M.	On covering stone of bridge between 1st and 2nd furlong-stones in 85th to 86th mile.	2012·268	2013·424
78		BM.31/57 C	83·8	T	at base of mile-stone No. 86.	2039·742	2040·912

Main-Line 19. (Bangalore to Bellary).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
79	BM 32 / 57 C	84·4	O	On guard-stone of bridge near 5th furlong-stone between mile-stones Nos. 86 and 87.	1985·195	1986·333
a / 79	BM 33 / 57 C	84·9	↗	On floor of verandah of Jaunahalli travellers' bungalow.	2007·967	2009·120
80	BM 34 / 57 C	85·8	T	at base of mile-stone No. 88.	2033·250	2034·414
81	BM 35 / 57 C	87·8	T	at base of mile-stone No. 90.	2127·115	2128·333
82	BM.36 / 57 C	89·8	T	at base of mile-stone No. 92.	2029·548	2030·708
83	BM 37 / 57 C	90·2	G T S. O B.M.	On covering stone of bridge near 3rd furlong-stone, between mile-stones Nos. 92 and 93.	2034·128	2035·290
84	BM 38 / 57 C	92·6	G T S. O B.M.	On rock *in situ* on E. side of road alongside 7th furlong-stone, between mile-stones Nos. 94 and 95, at Adawal village.	1965·008	1966·129
85	BM 39 / 57 C	93·8	T	at base of mile-stone No. 96.	1989·280	1990·415
86	BM 40 / 57 C	96·7	G T.S. O B M.	On rock *in situ* on W. side of road, and about 120 yards from 99th mile-stone on Hiriyur bridge, opposite fort gate.	1949·924	1951·035
a / 86	BM 41 / 57 C	97·0	↗	On floor of front verandah of Hiriyur travellers' bungalow.	1964·375	1965·495
87	BM 42 / 57 C	97·3	G.T.S. O B.M.	On stone at side of small pakka tank at Amildar's Chhattram in Hiriyur.	1964·967	1966·084
88	BM.43 / 57 C	97·8	T	at base of mile-stone No. 100.	2021·016	2022·165
89	BM.44 / 57 C	98·7	B.O M.	On flat covering stone of culvert opposite 7th furlong-stone, between mile-stones Nos. 100 and 101.	2002·859	2003·996
90	BM 45 / 57 C	99·6	G.T.S. O B.M.	On rock *in situ* on E side of road close to 6th furlong-stone, between mile-stones Nos. 101 and 102.	2064·342	2065·513
91	BM 1 / 57 B	101·8	T	at base of mile-stone No. 104.	2034·841	2035·992
92	BM.2 / 57 B	104·2	G.T.S. O B.M.	On rock *in situ* on E. side of road, and near 3rd furlong-stone, between mile-stones Nos. 106 and 107.	1985·093	1986·214
93	BM 3 / 57 B	104·8	T	at base of mile-stone No. 107, the summit of which is 2·55 feet above mark.	1993·783	1994·909
94	BM 4 / 57 B	105·9	G T S. O B M.	On rock *in situ* near Harti village, at bridge near 1st furlong-stone between mile-stones Nos. 108 and 109.	1962·886	1963·992

Main-Line 19. (Bangalore to Bellary).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
95	BM.5 / 57 B	107·8	T	at base of mile-stone No. 110.	1965·992	1967·098
a / 95	BM.6 / 57 B	108·1	G.T.S. ○ B.M.	On bottom step of front verandah of Hireballi travellers' bungalow.	1987·592	1988·711
96	BM.7 / 57 B	111·2	G.T.S. ○ B.M.	On rock *in situ* on W. side of road, and about midway between 3rd and 4th furlong-stones in 113th to 114th mile.	2070·941	2072·104
97	BM.8 / 57 B	112·5	G.T.S. ○ B.M.	On covering stone on W. side of bridge, close to 6th furlong-stone, between mile-stones Nos. 114 and 115.	2006·403	2007·527
98	BM.9 / 57 B	112·9	G.T.S. ○ B.M.	On rock *in situ* on E. side of road and near 1st furlong-stone, between mile-stones Nos. 115 and 116.	1964·257	1965·358
99	BM.10 / 57 B	113·8	T	at base of mile-stone No. 116.	1976·148	1977·254
100	BM 11 / 57 B	114·7	G.T.S. ○ B.M.	On rock *in situ* on E. side of road.	1937·402	1938·486
101	BM.12 / 57 B	116·8	T	at base of mile-stone No. 119, the summit of which is 3·30 feet above mark.	1877·057	1878·105
102	BM 13 / 57 B	118·8	T	at base of mile-stone No. 121, the summit of which is 3·15 feet above mark.	1877·634	1878·679
103	BM.14 / 57 B	119·8	T	at base of mile-stone No. 122.	1880·293	1881·339
104	BM.15 / 57 B	120·4	G.T.S. ○ B.M.	On rock *in situ*, about 12 paces to W. of road and nearly opposite 5th furlong-stone between mile-stones Nos. 122 and 123.	1892·948	1894·000
105	BM.16 / 57 B	122·7	G.T.S. ○ B.M.	On 2nd step (from ground) of front verandah of Chalakere travellers' bungalow.	1908·283	1909·341
106	BM.17 / 57 B	122·9	T	at base of mile-stone No. 125, the summit of which is 5·00 feet above mark.	1900·120	1901·174
a / 106	BM 18 / 57 B	123·1	G.T.S. ○ B.M.	On floor of verandah of Chalakerema temple on the W. side of road, and nearly opposite 2nd furlong-stone, between mile-stones Nos. 125 and 126.	1888·271	1889·319
107	BM 19 / 57 B	123·8	T	at base of mile-stone No. 126.	1922·073	1923·137
108	BM 20 / 57 B	124·8	T	at base of mile-stone No. 127, the summit of which is 2·45 feet above mark.	1923·683	1924·746
109	BM 21 / 57 B	126·8	T	at base of mile-stone No. 129.	1915·933	1916·990

Main-Line 19. (Bangalore to Bellary).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
110	BM.22 / 57 B	128·2	G.T.S. ○ B.M. On rock *in situ* on W. side of road, and nearly opposite 3rd furlong-stone between mile-stones Nos. 130 and 131.	1886·549	1887·586
111	BM.23 / 57 B	129·5	G.T.S. ○ B.M. On covering stone of bridge near 5th furlong-stone between mile-stones Nos. 131 and 132.	1835·016	1836·022
112	BM 24 / 57 B	132·1	D.P.W. referring pillar, on E side of road near 2nd furlong-stone between mile-stones Nos. 134 and 135, and opposite W. entrance to Tallak travellers' bungalow. The pillar is of stone, about 8 inches square in section and 18 inches above ground.	1793·187	1794·167
a / 112	BM 25 / 57 B	132·3	G.T.S. ○ B.M. On step of Tallak travellers' bungalow.	1805·113	1806·100
113	BM.26 / 57 B	132·8	⊤ at base of mile-stone No. 135.	1789·572	1790·550
114	BM 27 / 57 B	133·9	G.T.S. ○ B.M. On rock *in situ* on W. side of road, and nearly opposite 1st furlong-stone between mile-stones Nos. 136 and 137	1806·601	1807·587
115	BM 28 / 57 B	136·8	⊤ at base of mile-stone No. 139, the summit of which is 3·14 feet above mark.	1839·282	1840·281
116	BM 29 / 57 B	137·8	G.T.S. ○ B.M. On pier at E. side of bridge near mile-stone No. 140.	1862·240	1863·252
117	BM 30 / 57 B	137·9	B.↗M. • Marked on highest point of a prominent rock *in situ*, in a field to W. of road, and opposite 1st furlong-stone between mile-stones Nos. 140 and 141.	1873·963	1874·980
118	BM 31 / 57 B	138·8	⊤ at base of mile-stone No 141.	1865·834	1866·846
119	BM.32 / 57 B	140·2	G.T.S. ○ B.M. On rock *in situ* on W. side of road, between 3rd and 4th furlong-stones in 142nd to 143rd mile.	1923·196	1924·237
120	BM.33 / 57 B	141·8	⊤ at base of mile-stone No. 144.	1921·320	1922·358
121	BM 34 / 57 B	142·8	⊤ at base of mile-stone No. 145.	1867·030	1868·037
a / 121	BM.35 / 57 B	142·9	G.T.S. ○ B.M. at Bommankere Travellers' Bungalow. On stone step of front verandah.	1890·409	1891·430
122	BM.36 / 57 B	144·7	B.↗M. Painted on parapet of bridge near mile-stone No. 147.	1914·627	1915·658
123	BM 37 / 57 B	144·8	⊤ at base of mile-stone No. 147.	1914·051	1915·082
124	BM.38 / 57 B	145·7	G.T.S. ○ B.M. On stone pier at E. side of bridge, near 7th furlong-stone between mile-stones Nos. 147 and 148.	1983·981	1985·047

Main-Line 19. (Bangalore to Bellary).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
125	BM.39/57 B	147·3	G.T.S. ○ B.M.	On stone pier of bridge near 4th furlong-stone between mile-stones Nos. 149 and 150.	1983·662	1984·726
126	BM.40/57 B	147·8	T	at base of mile-stone No. 150.	2024·598	2025·684
127	BM 41/57 B	150·3	G.T.S. ○ B.M.	On rock *in situ* on W. side of road, and near 4th furlong-stone between mile-stones Nos. 152 and 153.	1923·114	1924·142
a/127	BM.42/57 B	153·7	G.T.S. ○ B.M.	On stone step of Anekal or Hangal Travellers' Bungalow occupied in 1874-75 as Amildar's treasury.	1838·992	1839·976
128	BM.43/57 B	153·9	T	at base of mile-stone No. 156.	1834·996	1835·975
129	BM 44/57 B	154·6	G.T.S. ○ B.M.	On rock *in situ* at 6th furlong-stone between mile-stones Nos. 156 and 157.	1830·948	1831·923
a/129	BM.45/57 B	157·6	D.P.W. referring pillar at Nagasamudra. At feeding channel to tank on E. side of road, at 6th furlong-stone between mile-stones Nos. 159 and 160. The pillar is square in section of about 8 inches side, and is 18 inches above ground.		1699·649	1700·555
130	BM 46/57 B	157·9	T	at base of mile-stone No. 160, the summit of which is 3·35 feet above mark.	1688·456	1689·354
131	BM 47/57 B	159·9	T	at base of mile-stone No. 162.	1673·577	1674·466
132	BM.48/57 B	160·2	G.T.S. ○ B.M.	On rock *in situ* on E. side of road, at 3rd furlong-stone between mile-stones Nos. 162 and 163.	1680·906	1681·799
133	BM.49/57 B	163·8	T	at base of mile-stone No. 166.	1688·073	1688·966
134	BM.50/57 B	164·8	G.T.S. ○ B.M.	On top of E. parapet of stone bridge near mile-stone No. 167.	1717·529	1718·438
135	BM 51/57 B	165·4	D.P.W. referring pillar at Devesamudra on W. side of road, at feeding channel to tank near 4th furlong-stone, between mile-stones Nos. 167 and 168. The pillar is of about 8 inches side, square in section, and 18 inches above ground.		1685·935	1686·825
136	BM 52/57 B	166·9	T	at base of mile-stone No. 169.	1684·757	1685·645
137	BM.53/57 B	173·2	T	at base of mile-stone No. 17, the summit of which is 2·68 feet above mark. On road from Bellary to Rayadrug opposite Somlapur village.	1548·337	1549·148
138	BM 54/57 B	174·0	G.T.S. ○ B.M.	On rock *in situ* on south-easterly direction and 15 paces from S.E. corner of Annumantha Raya's temple near Somlapur village in Rayadrug taluk.	1545·286	1546·094

Main-Line 19 (Bangalore to Bellary).

Designation of Bench-marks		Distance from Bangalore	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/138	BM 13/57 F	183·7	On top of pillar of Bandur, G.T. Survey Station, lat. 14° 57′ 42″·32, long. 77° 0′ 36″·91. A secondary station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1446·761	1447·518
1/138	BM.14/57 F	187·5	G.T.S. O B.M. On rock *in situ* by side of cart-track, and about opposite N.W. corner of Govindal village, Rayadrug taluk, Bellary district.	1439·190	1439·943
2/138	BM.15/57 F	190·7	On upper mark-stone of Honnur, G.T. Survey Station, lat. 14° 55′ 18″·96, long. 77° 6′ 2″·60. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1578·077	1578·902
139	BM 77/57 A	192·8	G.T.S. O B.M. On stone slab of Asharkhana platform at Budihal village, Bellary district.	1452·444	1453·196
140	BM 78/57 A	201·0	O On upper surface of landing stone at top of more southerly of two flights of steps at E. end of Mainwaring tank, 10 inches from N side wall of ghat, and 3 inches from N W corner of big landing stone. The letters G.T S. B.M. are cut on upright face of stone in side wall adjacent to O.	1473·466	1474·226
141	BM 7/57 A	201·4	Rail at Bellary Railway Station, opposite large archway at W. end of station building and 112 feet from W. end of platform.	1481·545	1482·308
142	BM 8/57 A	201·9	G.T.S. O B.M. at Bellary. On a big flooring stone of a paved drain, carrying water of ditch round fort to great tank, on road round glacis of fort, and to N.E. of E. fort gate. It is on W. side of road, 70 feet N. of junction with fort main road and 119 feet N.W. of C.B. Pillar No. 1.	1480·254	1481·016

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.1 / 65 D	0·0	G.T.S. □ B.M. at Bezwada Travellers' Bungalow. On flag-stone in pavement of E. verandah and between two doors of S. compartment.	65·844	65·874
2	BM.2 / 65 D	0·1	G.T.S. B.M. On top of mile-stone No. 43 from Masulipatam on front face of which the letters G.T.S. B.M. have been cut.	65·888	65·918
3	BM.3 / 65 D	0·6	G.T.S. ○ B.M. On pavement at N. end of anicut across Kistna river at Bezwada.	61·704	61·732
4	BM.4 / 65 D	1·4	G.T.S. ○ B.M. On N. parapet of head sluice on S. bank of Kistna river, and just above mark [62·83 M.F.L. 1874] on river face.	69·336	69·367
5	BM.5 / 65 D	2·1	G.T.S. ○ B.M. On W. parapet of culvert, 8 chains N. of mile-stone No. 268 from Madras.	70·229	70·261
6	BM.6 / 65 D	2·6	B.○M. On W. parapet of bridge, 26 chains S. of mile-stone No. 268 from Madras.	68·066	68·097
7	BM.7 / 65 D	4·2	G.T.S. ○ B.M. On E. parapet of bridge at mile-stone No. 266 from Madras.	69·858	69·890
8	BM.8 / 65 D	5·1	B.○M. On S. kerb-stone of W. parapet of bridge, 8 chains N. of mile-stone No. 265 from Madras.	91·196	91·237
9	BM.9 / 65 D	6·2	⋀ On N. abutment of bridge at mile-stone No. 264 from Madras. (Bellary-Kistna State Railway bench-mark).	106·575	106·623
10	BM.10 / 65 D	6·7	⋀ On plinth on N. side of W. doorway of Mangalagiri Railway Station. (Bellary-Kistna State Railway bench-mark).	100·114	100·159
11	BM.11 / 65 D	7·0	⋀ On N. abutment of bridge at mile-stone No. 273 from Guntakal. (Bellary-Kistna State Railway bench-mark).	96·827	96·871
12	BM.12 / 65 D	7·3	G.T.S. □ B.M. at Mangalagiri Travellers' Bungalow. Embedded in a block of masonry flush with terrace floor of verandah.	96·870	96·914
13	BM.13 / 65 D	8·6	G.T.S. ○ B.M. On W. parapet of bridge, 3 chains S. of mile-stone No. 262 from Madras.	66·634	66·664
14	BM.14 / 65 D	10·6	Top of mile-stone No. 260 from Madras.	69·871	69·903
15	BM.15 / 65 D	10·7	G.T.S. ○ B.M. On E. parapet of bridge, 7 chains S. of mile-stone No. 260 from Madras.	73·764	73·798
16	BM.16 / 65 D	11·3	G.T.S. ○ B.M. On E. parapet of bridge, 23 chains N. of mile-stone No. 259 from Madras.	62·278	62·306

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
17	BM.17 / 65 D	12·5	Top of mile-stone No. 258 from Madras.	93·388	93·431
18	BM.18 / 65 D	13·5	Top of mile-stone No. 257 from Madras.	101·661	101·708
19	BM.19 / 65 D	14·5	Top of mile-stone No. 256 from Madras.	114·095	114·147
20	BM 20 / 65 D	16·5	G.T.S. ○ B.M. On W. parapet of bridge, 2 chains N. of mile-stone No. 254 from Madras.	78·541	78·577
21	BM 21 / 65 D	17·5	G.T.S. ○ B.M. On W. parapet of bridge, 1 chain S. of mile-stone No. 253 from Madras.	74·299	74·333
22	BM.22 / 65 D	18·5	Top of mile-stone No. 252 from Madras.	72·973	73·007
23	BM 23 / 65 D	19·5	Top of mile-stone No. 251 from Madras.	77·318	77·353
24	BM 24 / 65 D	20·3	G.T.S. □ B.M. at Guntur Travellers' Bungalow. Embedded flush with verandah floor.	89·982	90·023
25	BM 25 / 65 D	21·3	Top of mile-stone No. 249 from Madras.	86·239	86·279
26	BM 26 / 65 D	22·0	G.T.S. ○ B.M. On S. parapet of bridge W. of sign-post at junction of metalled roads to Madras from Guntur and Vinukonda, and 27 chains E. of mile-stone No. 248 from Madras.	94·319	94·362
27	BM 27 / 65 D	22·3	B.○M. On N. parapet of causeway, 2 chains E. of mile-stone No. 248 from Madras.	91·215	91·257
28	BM.28 / 65 D	24·0	G.T.S. ○ B.M. On N. parapet of bridge, 22 chains E. of mile-stone No. 246 from Madras.	104·502	104·551
29	BM 29 / 65 D	25·0	G.T.S. ○ B.M. On S. parapet of bridge, 26 chains E. of mile-stone No. 245 from Madras.	101·651	101·698
30	BM 30 / 65 D	25·9	G.T.S. ○ B.M. On S. parapet of bridge, 33 chains E. of mile-stone No. 244 from Madras.	110·695	110·746
31	BM 31 / 65 D	27·0	G.T.S. ○ B.M. On S. parapet of causeway, 26 chains E. of mile-stone No. 243 from Madras.	122·619	122·676
32	BM 32 / 65 D	28·2	G.T.S. ○ B.M. On N. parapet of causeway, 8 chains N.E. of mile-stone No. 242 from Madras.	145·090	145·157
33	BM 33 / 65 D	28·8	G.T.S. ○ B.M. On E. parapet of bridge between mile-stones Nos. 241 and 242 from Madras.	148·309	148·377
34	BM.34 / 65 D	29·3	G.T.S. ○ B.M. On W. parapet of causeway at mile-stone No. 241 from Madras.	142·151	142·217

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
35	BM.35 / 65 D	31·9	Top of mile-stone No. 239 from Madras.	143·482	143·548
a / 35	BM.36 / 65 D	33·8	G.T.S. □ B.M. at Yanamadala. Embedded at W. side of Sitaram Swami's temple, 68 feet from Hanuman's temple, and 38 feet from N.W. corner of tower in front of Sitaram Swami's temple. The letters B.M. are cut at the above corner.	108·110	108·160
36	BM.37 / 65 D	32·9	Top of mile-stone No. 238 from Madras.	164·657	164·734
37	BM.38 / 65 D	33·3	G.T.S. ○ B.M. On W. parapet of bridge, 31 chains S. of mile-stone No. 238 from Madras.	169·034	169·113
38	BM 39 / 65 D	33·9	G.T.S. ○ B.M. On E. parapet of bridge near mile-stone No. 237 from Madras.	163·743	163·819
39	BM.40 / 65 D	34·9	G.T.S. ○ B.M. On W. parapet of bridge, 2 chains S. of mile-stone No. 236 from Madras.	160·676	160·751
40	BM 41 / 65 D	35·9	Top of mile-stone No. 235 from Madras.	143·329	143·395
41	BM.42 / 65 D	36·3	G.T.S. ○ B.M. On W. parapet of bridge, 29 chains S. of mile-stone No. 235 from Madras.	136·294	136·357
42	BM.43 / 65 D	36·9	Top of mile-stone No. 234 from Madras.	131·207	131·268
43	BM.44 / 65 D	37·9	Top of mile-stone No. 233 from Madras.	111·671	111·723
44	BM 45 / 65 D	38·9	Top of mile-stone No. 232 from Madras.	82·218	82·256
45	BM.46 / 65 D	39·9	Top of mile-stone No. 231 from Madras.	84·178	84·217
46	BM.47 / 65 D	40·9	Top of mile-stone No. 230 from Madras.	115·224	115·278
47	BM.48 / 65 D	41·8	G.T.S. ○ B.M. On E. parapet of bridge, 11 chains N. of mile-stone No. 229 from Madras.	124·855	124·913
48	BM.49 / 65 D	41·9	Top of mile-stone No. 229 from Madras.	125·356	125·415
49	BM 50 / 65 D	42·9	Top of mile-stone No. 228 from Madras.	119·428	119·484
50	BM 51 / 65 D	43·9	Top of mile-stone No. 227 from Madras.	87·193	87·234
51	BM 52 / 65 D	44·9	Top of mile-stone No. 226 from Madras.	99·692	99·739

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
52	BM 53 / 65 D	45·9	Top of mile-stone No. 225 from Madras.	93·346	93·390
1/52	BM 54 / 65 D	47·0	G.T.S. □ B.M. at Chilakalurpet. Embedded at N E corner of masonry platform, 11½ feet square and 4 feet high, supporting Hanuman's image, at N. end of village.	102·159	102·207
2/52	BM.55 / 65 D	55·5	On mark-stone on top of circular pillar of Palaparu, G.T. Survey Station, lat. 16° 3′ 14″·55, long. 80° 16′ 35″·80. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).	48·275	48·298
53	BM 56 / 65 D	46·9	Top of mile-stone No. 224 from Madras.	103·076	103·124
54	BM.57 / 65 D	47·9	Top of mile-stone No. 223 from Madras.	117·961	118·016
55	BM 58 / 65 D	48·9	Top of mile-stone No. 222 from Madras.	119·057	119·113
56	BM 59 / 65 D	49·9	Top of mile-stone No. 221 from Madras.	94·949	94·994
57	BM 60 / 65 D	50·9	Top of mile-stone No. 220 from Madras.	82·905	82·944
58	BM 61 / 65 D	51·9	Top of mile-stone No. 219 from Madras.	90·326	90·369
59	BM 62 / 65 D	52·9	Top of mile-stone No. 218 from Madras.	108·083	108·134
60	BM 63 / 65 D	54·2	Top of mile-stone No. 217 from Madras.	135·318	135·382
a/60	BM 1 / 66 A	54·8	G.T.S. □ B.M. at Martur. Embedded at N. end of police station, 12 feet from N.W. and 10 feet from N.E corners, and 7 feet from N. face of police station, on which letters B.M. are cut.	127·870	127·931
61	BM 2 / 66 A	55·2	Top of mile-stone No. 216 from Madras.	149·464	149·535
62	BM.3 / 66 A	56·2	Top of mile-stone No. 215 from Madras.	181·652	181·739
63	BM.4 / 66 A	57·0	G.T.S. ○ B.M. On S. end of causeway towards W. side of main road, and 10 chains N. of mile-stone No. 214 from Madras.	158·092	158·167
64	BM 5 / 66 A	57·1	Top of mile-stone No. 214 from Madras.	161·967	162·044
65	BM.6 / 66 A	58·1	Top of mile-stone No. 213 from Madras.	179·720	179·806

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
66	BM.7 / 66 A	58·4	G.T.S. ○ B.M. On W. parapet of bridge, ¼ mile S. of mile-stone No. 213 from Madras.	179·446	179·532
67	BM.8 / 66 A	59·1	Top of mile-stone No. 212 from Madras.	176·482	176·566
68	BM.9 / 66 A	60·1	Top of mile-stone No. 211 from Madras.	201·247	201·343
69	BM.10 / 66 A	61·0	Top of mile-stone No. 209 from Madras.	218·237	218·341
70	BM 11 / 66 A	62·1	Top of mile-stone No. 208 from Madras.	180·420	180·506
71	BM.12 / 66 A	63·1	Top of mile-stone No. 207 from Madras.	138·008	138·074
72	BM.13 / 66 A	64·1	Top of mile-stone No. 206 from Madras.	152·904	152·978
73	BM.14 / 66 A	64·4	G.T.S. □ B.M. at Muppavaram. Embedded to S. of Mahadeo's temple: it is 18 feet from S.W. and 17 feet from S.E. corners, and 14 feet from S. face of temple on which letters B.M. are cut.	131·940	132·004
74	BM.15 / 66 A	65·1	Top of mile-stone No. 205 from Madras.	161·111	161·189
75	BM.16 / 66 A	66·1	Top of mile-stone No. 204 from Madras.	160·531	160·609
76	BM.17 / 66 A	67·1	Top of mile-stone No. 203 from Madras.	162·500	162·579
77	BM.18 / 66 A	68·1	Top of mile-stone No. 202 from Madras.	147·447	147·518
78	BM.1 / 57 M	69·1	Top of mile-stone No. 201 from Madras.	163·328	163·407
79	BM.2 / 57 M	70·1	Top of mile-stone No. 200 from Madras.	153·114	153·188
80	BM.3 / 57 M	71·1	Top of mile-stone No. 199 from Madras.	132·342	132·406
81	BM.4 / 57 M	72·1	Top of mile-stone No. 198 from Madras.	136·036	136·102
82	BM.5 / 57 M	73·2	Top of mile-stone No. 197 from Madras.	139·427	139·495
83	BM.6 / 57 M	74·2	Top of mile-stone No. 196 from Madras.	111·439	111·493

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
84	BM 7 / 57 M	75·2	Top of mile-stone No. 195 from Madras.	85·849	85·891
85	BM 8 / 57 M	76·1	Top of mile-stone No. 194 from Madras.	84·055	84·096
86	BM.9 / 57 M	77·2	Top of mile-stone No. 193 from Madras.	88·153	88·196
87	BM.10 / 57 M	78·2	Top of mile-stone No. 192 from Madras.	62·002	62·033
88	BM 11 / 57 M	78·8	G.T.S. □ B.M. at Velampalle Travellers' Bungalow. Embedded in a block of masonry flush with terrace floor of S. verandah of W. compartment.	54·500	54·527
89	BM 12 / 57 M	79·2	Top of mile-stone No. 191 from Madras.	51·478	51·503
90	BM 13 / 57 M	80·2	Top of mile-stone No. 190 from Madras.	47·346	47·369
91	BM 14 / 57 M	81·2	Top of mile-stone No. 189 from Madras.	47·013	47·036
92	BM 15 / 57 M	82·2	Top of mile-stone No. 188 from Madras.	44·535	44·557
93	BM 16 / 57 M	83·2	Top of mile-stone No. 187 from Madras.	36·246	36·264
94	BM.17 / 57 M	84·2	Top of mile-stone No. 186 from Madras.	32·246	32·262
95	BM 18 / 57 M	85·2	Top of mile-stone No. 185 from Madras.	30·770	30·785
96	BM 19 / 57 M	86·2	Top of mile-stone No. 184 from Madras.	30·664	30·679
97	BM 20 / 57 M	87·2	Top of mile-stone No. 183 from Madras.	27·717	27·731
98	BM 21 / 57 M	88·2	Top of mile-stone No. 182 from Madras.	26·969	26·982
99	BM.22 / 57 M	89·2	Top of mile-stone No. 181 from Madras.	49·592	49·617
a / 99	BM 19 / 66 A	90·0	G.T.S. □ B.M. at Ongole Travellers' Bungalow. Embedded flush with terrace floor of verandah on S.E. side.	42·877	42·898
1 / 99	BM 20 / 66 A	90·2	On mark-stone on top of circular pillar of Ongole G.T. Survey Station, lat. 15° 29′ 56″·85, long. 80° 2′ 26″·72. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).	249·753	249·878

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks			Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
100		BM.23 / 57 M	90·2	Top of mile-stone No. 180 from Madras.	30·349	30·364
101		BM 24 / 57 M	91·2	Top of mile-stone No. 179 from Madras.	27·655	27·669
102		BM.25 / 57 M	92·2	Top of mile-stone No. 178 from Madras.	33·577	33·594
103		BM.26 / 57 M	93·2	Top of mile-stone No. 177 from Madras.	24·622	24·635
104		BM.27 / 57 M	94·2	Top of mile-stone No. 176 from Madras.	26·701	26·715
105		BM 28 / 57 M	94·4	G.T.S. □ B.M. Embedded at E. side of Valluramma temple, situated on bank of a tank to N.W. of Vallur village, 23 feet from S.E. and 18 feet from N.E. corners of temple, and 3 feet from S.E. corner of Gangamma's temple. The letters B.M. are cut on E. face of first named temple.	30·033	30·048
106		BM.29 / 57 M	95·2	Top of mile-stone No. 175 from Madras.	23·807	23·819
107		BM 30 / 57 M	96·2	Top of mile-stone No. 174 from Madras.	26·008	26·021
108		BM.31 / 57 M	97·2	Top of mile-stone No. 173 from Madras.	21·271	21·282
109		BM.32 / 57 M	98·3	Top of mile-stone No. 172 from Madras.	21·267	21·278
110		BM.33 / 57 M	99·2	Top of mile-stone No. 171 from Madras.	17·810	17·819
111		BM.34 / 57 M	100·2	Top of mile-stone No. 170 from Madras.	20·176	20·186
112		BM.35 / 57 M	101·2	Top of mile-stone No. 169 from Madras.	18·065	18·074
113		BM.36 / 57 M	102·2	Top of mile-stone No. 168 from Madras.	19·412	19·422
114		BM.37 / 57 M	103·2	Top of mile-stone No. 167 from Madras.	17·600	17·609
115		BM.38 / 57 M	104·2	Top of mile-stone No. 166 from Madras.	22·968	22·980
116		BM.39 / 57 M	105·2	Top of mile-stone No. 165 from Madras.	52·018	52·045
117		BM.40 / 57 M	106·2	Top of mile-stone No. 164 from Madras.	80·974	81·015

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
118	BM.41 / 57 M	107·2	G.T.S. □ B.M. at Singarayarkonda. Embedded at W. side of Mrs. Franklin's tomb, almost opposite and 114 feet from 163rd mile-stone from Madras, 6 feet from N.W. and 7 feet from S.W. pillars of tomb. The letters B.M. are cut on S.W. pillar.	67·026	67·060
119	BM 42 / 57 M	107·3	Top of mile-stone No. 163 from Madras.	69·547	69·583
120	BM.43 / 57 M	108·3	Top of mile-stone No. 162 from Madras.	28·497	28·511
121	BM.44 / 57 M	110·3	Top of mile-stone No. 160 from Madras.	20·680	20·691
122	BM 45 / 57 M	111·3	Top of mile-stone No. 159 from Madras.	18·336	18·345
123	BM 46 / 57 M	112·3	Top of mile-stone No. 158 from Madras.	25·065	25·078
124	BM 47 / 57 M	113·3	Top of mile-stone No. 157 from Madras.	30·985	31·001
125	BM.48 / 57 M	114·3	Top of mile-stone No. 156 from Madras.	26·459	26·472
126	BM.49 / 57 M	115·3	Top of mile-stone No. 155 from Madras.	35·911	35·930
127	BM 50 / 57 M	116·3	Top of mile-stone No. 154 from Madras.	28·160	28·174
128	BM 51 / 57 M	117·3	Top of mile-stone No. 153 from Madras.	16·727	16·736
129	BM 52 / 57 M	118·3	Top of mile-stone No. 152 from Madras.	27·571	27·585
130	BM 53 / 57 M	119·3	Top of mile-stone No. 151 from Madras.	38·176	38·196
131	BM 54 / 57 M	120·3	Top of mile-stone No. 150 from Madras.	50·133	50·159
132	BM 55 / 57 M	120·6	G.T.S. □ B.M. at Tettu. Embedded to N. of police station, 12 feet from N.E. and 13 feet from N.W. corners, and 8 feet from N. face of police station, on which letters B.M. are cut.	59·405	59·436
133	BM.56 / 57 M	121·4	Top of mile-stone No. 149 from Madras.	78·628	78·669
134	BM.57 / 57 M	122·4	Top of mile-stone No. 148 from Madras.	58·762	58·793

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
135	BM.58 / 57 M	123·4	Top of mile-stone No. 147 from Madras.	57·921	57·951
136	BM.33 / 57 N	124·4	Top of mile-stone No. 146 from Madras.	67·727	67·762
137	BM.34 / 57 N	125·4	Top of mile-stone No. 145 from Madras.	58·204	58·234
138	BM.35 / 57 N	126·4	Top of mile-stone No. 144 from Madras.	33·485	33·502
139	BM.36 / 57 N	127·4	Top of mile-stone No. 143 from Madras.	37·658	37·678
140	BM.37 / 57 N	128·4	Top of mile-stone No. 142 from Madras.	33·719	33·737
141	BM.38 / 57 N	129·4	Top of mile-stone No. 141 from Madras.	40·560	40·582
142	BM.39 / 57 N	129·9	G.T.S. □ B.M. at Kavali. Embedded 4 feet to S. of Post Office, 19 feet from pillar at S.E. corner of verandah, 9 feet from S.W. corner, and 4 feet from S. face of Post Office, on which letters B.M. are cut.	42·919	42·941
143	BM.40 / 57 N	130·5	Top of mile-stone No. 140 from Madras.	44·002	44·025
144	BM.41 / 57 N	131·5	Top of mile-stone No. 139 from Madras.	40·049	40·070
145	BM 42 / 57 N	132·5	Top of mile-stone No. 138 from Madras.	49·427	49·453
146	BM.43 / 57 N	133·5	Top of mile-stone No. 137 from Madras.	27·263	27·277
147	BM.44 / 57 N	134·4	Top of mile-stone No. 136 from Madras.	25·390	25·403
148	BM.45 / 57 N	135·5	Top of mile-stone No. 135 from Madras.	25·762	25·776
1 / 148	BM 46 / 57 N	136·6	On mark-stone on top of pillar of Gavuravaram G.T. Survey Station, lat. 14° 49′ 48″·04, long. 79° 58′ 45″·28. A secondary station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).	82·734	82·778
149	BM.47 / 57 N	136·5	Top of mile-stone No. 134 from Madras.	24·880	24·893
150	BM.48 / 57 N	137·5	Top of mile-stone No. 133 from Madras.	26·141	26·155
151	BM.49 / 57 N	138·6	Top of mile-stone No. 132 from Madras.	23·580	23·593

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
152	BM.1 / 66 B	139·6	G.T.S. □ B.M. at Kovurupalle. Embedded to E. of southern Police Lines, 11 feet from N.E. and 23 feet from S.E. corners, 5 feet from E. face of Police Lines, and 156 feet from 131st mile-stone from Madras. The letters B.M. are cut on E. face of lines.	18·754	18·764
153	BM 2 / 66 B	139·6	Top of mile-stone No. 131 from Madras.	19·696	19·707
154	BM 3 / 66 B	140·6	Top of mile-stone No. 130 from Madras.	36·509	36·529
155	BM 4 / 66 B	141·6	Top of mile-stone No. 129 from Madras.	16·525	16·534
156	BM.50 / 57 N	142·7	Top of mile-stone No. 128 from Madras.	45·071	45·095
157	BM 51 / 57 N	143·7	Top of mile-stone No. 127 from Madras.	20·974	20·985
158	BM 52 / 57 N	144·7	Top of mile-stone No. 126 from Madras.	23·463	23·475
159	BM 53 / 57 N	145·7	Top of mile-stone No. 125 from Madras.	33·640	33·658
160	BM 54 / 57 N	146·7	Top of mile-stone No. 124 from Madras.	52·363	52·391
161	BM.55 / 57 N	147·7	Top of mile-stone No 123 from Madras.	67·509	67·546
162	BM 56 / 57 N	148·7	Top of mile-stone No. 122 from Madras.	75·454	75·494
163	BM.57 / 57 N	149·7	Top of mile-stone No. 121 from Madras.	51·975	52·003
164	BM 58 / 57 N	150·7	Top of mile-stone No. 120 from Madras.	59·635	59·667
165	BM 59 / 57 N	151·7	Top of mile-stone No. 119 from Madras.	46·452	46·477
166	BM.60 / 57 N	152·6	G.T.S. □ B.M. at Kamapalem Chhattram. Embedded near S.W. corner of masonry seat on S.W. side of Chhattram, 4 feet from S.W. and 12 feet from S.E. corners of W. platform of Chhattram, and 28 feet from S.E. corner of masonry tank to W. of Chhattram. The letters B.M. are cut on W. face of masonry seat.	42·035	42·058
167	BM.61 / 57 N	152·7	Top of mile-stone No. 118 from Madras.	46·822	46·847
168	BM 62 / 57 N	153·7	Top of mile-stone No. 117 from Madras.	51·130	51·158

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks			Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
169		BM 63 / 57 N	154·7	Top of mile-stone No. 116 from Madras.	49·608	49·635
170		BM 64 / 57 N	155·7	Top of mile-stone No. 115 from Madras.	50·016	50·043
171		BM.65 / 57 N	156·7	Top of mile-stone No. 114 from Madras.	48·451	48·477
172		BM 66 / 57 N	157·7	Top of mile-stone No. 113 from Madras.	50·148	50·175
173		BM.67 / 57 N	158·7	Top of mile-stone No. 112 from Madras.	54·843	54·873
174		BM.68 / 57 N	159·7	Top of mile-stone No. 111 from Madras.	55·151	55·181
175		BM.69 / 57 N	160·1	□ ^ B.M. 56·86 Marked on stone embedded in E. parapet of a canal bridge. (P.W.D. bench-mark).	60·888	60·921
176		BM.70 / 57 N	160·7	Top of mile-stone No. 110 from Madras.	52·339	52·367
177		BM.71 / 57 N	161·9	57·38 Marked on stone on S. side of road along S. bank of Penner river, and 5 chains E. of Irrigation Department store-house near anicut. (P.W.D. bench-mark).	61·476	61·509
	a / 177	BM.72 / 57 N	162·1	59·21 Marked on stone on S. bank of Penner river, and near front return of anicut, close to telegraph mast, and opposite mile-stone No. 109 from Madras. (P.W.D. bench-mark).	63·308	63·342
178		BM.73 / 57 N	162·2	52·84 Marked on stone embedded in N. parapet of canal bridge, 1 mile N.E. of Nellore Railway Station. (P.W.D. bench-mark).	57·038	57·069
179		BM.74 / 57 N	162·6	G.T.S. □ B.M. at Nellore Railway Station. Embedded near engine tank, 3 feet from S.E. and 11 feet from S.W. corners, and 2 feet from S. face of tank on which letters B.M. are cut.	57·134	57·165
180		BM.75 / 57 N	162·9	G.T.S. ○ B.M. On E. parapet of culvert No. 2 at telegraph post No. 0/5.	55·985	56·016
	a / 180	BM.76 / 57 N	163·1	53·84 Marked on stone embedded in N. parapet of bridge on road from Nellore to Nawabpet: it is N.E by E. of gate-keeper's house at S. end of Nellore Railway Station, and alongside a lamp-post. (P.W.D. bench-mark).	58·034	58·066
181		BM.77 / 57 N	164·2	Top of mile-stone No. 107 from Madras.	54·951	54·981

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
182	BM 78 / 57 N	165·2	Top of mile-stone No. 106 from Madras.	68·574	68·612
183	BM.79 / 57 N	166·2	Top of mile-stone No. 105 from Madras.	90·973	91·023
184	BM 80 / 57 N	167·2	Top of mile-stone No. 104 from Madras.	103·857	103·914
185	BM 81 / 57 N	168·2	Top of mile-stone No. 103 from Madras.	70·908	70·947
186	BM 82 / 57 N	169·2	Top of mile-stone No. 102 from Madras.	71·498	71·537
187	BM 83 / 57 N	170·2	Top of mile-stone No. 101 from Madras.	63·018	63·053
188	BM 84 / 57 N	171·1	Top of mile-stone No. 100 from Madras.	71·737	71·777
189	BM.85 / 57 N	172·1	Top of mile-stone No. 99 from Madras.	75·195	75·236
190	BM 86 / 57 N	173·1	Top of mile-stone No. 98 from Madras.	66·720	66·757
1/190	BM 87 / 57 N	173·4	G.T.S. □ B.M. at Vencatachellum Railway Station. Embedded flush with terrace floor of veraudah of station master's quarters.	79·717	79·761
2/190	BM 88 / 57 N	174·9	On mark-stone on top of circular pillar of Bandalduru G.T. Survey Station, lat. 14° 18′ 11″·30, long. 79° 56′ 13″·46. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).	141·342	141·420
191	BM 89 / 57 N	174·1	Top of mile-stone No. 97 from Madras.	58·361	58·393
192	BM.90 / 57 N	175·1	Top of mile-stone No. 96 from Madras.	63·046	63·081
193	BM.91 / 57 N	176·1	Top of mile-stone No. 95 from Madras.	35·686	35·706
194	BM.92 / 57 N	177·1	Top of mile-stone No. 94 from Madras.	27·427	27·442
195	BM.93 / 57 N	178·1	Top of mile-stone No. 93 from Madras.	25·506	25·520
196	BM 94 / 57 N	179·1	Top of mile-stone No. 92 from Madras.	24·916	24·930
197	BM 95 / 57 N	180·1	Top of mile-stone No. 91 from Madras.	43·426	43·450

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
198	BM.96 / 57 N	181·1	Top of mile-stone No. 90 from Madras.	58·982	59·015
199	BM 97 / 57 N	182·1	Top of mile-stone No. 89 from Madras.	57·472	57·504
200	BM.98 / 57 N	183·0	Top of mile-stone No. 88 from Madras.	35·015	35·035
201	BM.99 / 57 N	184·0	Top of mile-stone No. 87 from Madras.	35·708	35·728
202	BM.100 / 57 N	184·9	Top of mile-stone No. 86 from Madras.	35·148	35·168
203	BM.101 / 57 N	185·9	Top of mile-stone No. 85 from Madras.	34·688	34·708
204	BM.102 / 57 N	186·5	G.T.S. ○ B.M. at Gudur. On 2nd step from ground, of Sub-Registrar's office on W. side of main road.	36·886	36·907
205	BM.103 / 57 N	187·0	Top of mile-stone No. 84 from Madras.	35·277	35·297
1/205	BM 104 / 57 N	187·7	G.T.S. □ B.M. at Gudur Railway Station. Embedded 2 feet to S. of central pillar of 3rd class passengers' waiting room, 60 feet from N.E. corner of reservoir, and 70 feet from well. The letters B.M. are cut on pillar near bench-mark.	50·803	50·832
2/205	BM.105 / 57 N	187·7	G.T.S. ○ B.M. On platform coping opposite booking office at Gudur Railway Station.	51·348	51·377
3/205	BM.106 / 57 N	187·7	A plain stone on W. side of line, 167 feet from railway mile-stone No. 24 from Nellore, and 229 feet from S.W. corner of goods-shed. (Gudur S.I. Railway bench-mark).	48·296	48·323
206	BM.107 / 57 N	188·0	Top of mile-stone No. 83 from Madras.	35·571	35·591
207	BM.108 / 57 N	188·9	Top of mile-stone No. 82 from Madras.	31·086	31·103
208	BM.109 / 57 N	190·0	Top of mile-stone No. 81 from Madras.	48·707	48·735
209	BM.110 / 57 N	191·0	Top of mile-stone No. 80 from Madras.	34·088	34·107
210	BM.111 / 57 N	192·0	Top of mile-stone No. 79 from Madras.	44·785	44·810
211	BM.112 / 57 N	193·0	Top of mile-stone No. 78 from Madras.	79·114	79·159
212	BM.113 / 57 N	193·3	G.T.S. ○ B.M. On stone embedded at N. end of causeway and on W. side of main road.	83·549	83·596

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
213	BM 114 / 57 N	194·0	Top of mile-stone No. 77 from Madras.	91·488	91 539
214	BM 115 / 57 N	195·0	Top of mile-stone No. 76 from Madras.	106·978	107·038
215	BM 116 / 57 N	196·0	Top of mile-stone No. 75 from Madras.	100·218	100·275
216	BM 117 / 57 N	197·0	Top of mile-stone No. 74 from Madras.	110·711	110·773
1 / 216	BM.118 / 57 N	201·8	On mark-stone on top of circular pillar of Gurramkonda G.T. Survey Station, lat. 14° 0′ 42″·41, long. 79° 50′ 9″·24. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).	328·885	329·071
217	BM 119 / 57 N	198·0	Top of mile-stone No 73 from Madras.	88·439	88·489
a / 217	BM 98 / 57 O	198·1	G T S. □ B M. at Vojili Police Lines. Embedded in verandah facing main road, 3 feet from second post from N. end, and 9 inches from back wall of bungalow.	86·869	86·918
218	BM 99 / 57 O	199·0	Top of mile-stone No. 72 from Madras.	74·805	74·848
219	BM 100 / 57 O	200·0	Top of mile-stone No. 71 from Madras.	76·374	76·417
220	BM 101 / 57 O	201·0	Top of mile-stone No. 70 from Madras.	78·449	78·493
221	BM.102 / 57 O	202·0	Top of mile-stone No. 69 from Madras.	84·595	84·643
222	BM 103 / 57 O	203·0	Top of mile-stone No. 68 from Madras.	90·658	90·710
223	BM 104 / 57 O	204·0	Top of mile-stone No. 67 from Madras.	93·521	93·575
224	BM 105 / 57 O	205·0	Top of mile-stone No. 66 from Madras.	92·569	92·622
225	BM 106 / 57 O	206·0	Top of mile-stone No. 65 from Madras.	105·409	105·469
226	BM 107 / 57 O	207·0	Top of mile-stone No. 64 from Madras.	113·459	113·524
227	BM 108 / 57 O	208·0	Top of mile-stone No. 63 from Madras.	112·934	112·999

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
228	BM.109 / 57 O	208·6	G.T.S. □ B.M. at Nelaballi Travellers' Bungalow. Embedded in S E. verandah, and immediately below window of S.W. half of bungalow, 1 foot from back wall of verandah, and 8 feet from edge of plinth.	124·199	124·270
229	BM.110 / 57 O	209·1	Top of mile-stone No. 62 from Madras.	108·539	108·601
230	BM.111 / 57 O	210·1	Top of mile-stone No. 61 from Madras.	110·343	110·406
231	BM.112 / 57 O	211·1	Top of mile-stone No. 60 from Madras.	99·244	99·301
232	BM.113 / 57 O	212·1	Top of mile-stone No. 59 from Madras.	84·204	84·252
233	BM.114 / 57 O	213·1	Top of mile-stone No. 58 from Madras.	71·328	71·369
234	BM.115 / 57 O	214·1	Top of mile-stone No. 57 from Madras.	44·679	44·705
235	BM.116 / 57 O	215·2	Top of mile-stone No. 56 from Madras.	42·083	42·107
236	BM.117 / 57 O	216·2	Top of mile-stone No. 55 from Madras.	36·464	36·485
237	BM.118 / 57 O	217·2	Top of mile-stone No. 54 from Madras.	34·496	34·516
238	BM.119 / 57 O	218·2	Top of mile-stone No. 53 from Madras.	30·010	30·027
239	BM.120 / 57 O	219·2	Top of mile-stone No. 52 from Madras.	22·999	23·012
240	BM.40 / 66 C	220·2	Top of mile-stone No. 51 from Madras.	23·692	23·706
241	BM.41 / 66 C	221·2	Top of mile-stone No. 50 from Madras.	21·607	21·620
242	BM.42 / 66 C	221·9	G.T.S. □ B.M. at Sullurupeta Travellers' Bungalow. Embedded in verandah facing main road: it is just below window of southern half of bungalow, 4 feet from partition wall and 1 foot from back wall of verandah.	23·522	23·536
243	BM.43 / 66 C	223·1	Top of mile-stone No. 48 from Madras.	13·237	13·245
244	BM 44 / 66 C	224·2	Top of mile-stone No. 47 from Madras.	25·855	25·870

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
245	BM 45 / 66 C	225·2	Top of mile-stone No. 46 from Madras.	18·656	18·667
246	BM 46 / 66 C	226·2	Top of mile-stone No. 45 from Madras.	22·118	22·131
247	BM.47 / 66 C	227·2	Top of mile-stone No. 44 from Madras.	14·178	14·186
248	BM 48 / 66 C	228·2	Top of mile-stone No. 43 from Madras.	12·340	12·347
249	BM 49 / 66 C	229·2	Top of mile-stone No. 42 from Madras.	40·049	40·072
250	BM 50 / 66 C	230·2	Top of mile-stone No. 41 from Madras.	29·525	29·543
251	BM.51 / 66 C	231·2	Top of mile-stone No. 40 from Madras.	31·699	31·718
252	BM.52 / 66 C	232·2	Top of mile-stone No. 39 from Madras.	42·589	42·614
253	BM 53 / 66 C	234·2	Top of mile-stone No. 37 from Madras.	23·829	23·843
254	BM 54 / 66 C	235·2	Top of mile-stone No. 36 from Madras.	31·947	31·966
a / 254	BM 55 / 66 C	235·6	G.T.S. □, B.M. at Arambakkam Travellers' Bungalow. Embedded in verandah, 13 inches from S. edge of plinth, and 12 inches from pillar at E. corner.	34·341	34·361
255	BM 56 / 66 C	236·2	Top of mile-stone No. 35 from Madras.	23·411	23·425
256	BM 57 / 66 C	237·2	Top of mile-stone No. 34 from Madras.	14·828	14·837
257	BM 58 / 66 C	238·2	Top of mile-stone No. 33 from Madras.	11·142	11·148
258	BM.59 / 66 C	239·2	Top of mile-stone No. 32 from Madras.	13·855	13·863
259	BM.60 / 66 C	240·2	Top of mile-stone No. 31 from Madras.	44·787	44·814
260	BM.61 / 66 C	241·2	Top of mile-stone No. 30 from Madras.	47·667	47·695
261	BM 62 / 66 C	242·2	Top of mile-stone No. 29 from Madras.	50·354	50·384
262	BM.63 / 66 C	243·2	Top of mile-stone No. 28 from Madras.	52·510	52·541

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1/262	BM 64/66 C	246·9	On top of tower of Rettambedu G.T. Survey Station, lat. 13° 26′ 5″·04, long. 80° 10′ 12″·12. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).	54·546	54·578
263	BM 65/66 C	244·2	Top of mile-stone No. 27 from Madras.	47·063	47·091
264	BM 66/66 C	244·4	G.T.S. ○ B.M. at Gummidipundi Travellers' Bungalow. On floor of verandah on E. side of S. compartment.	44·618	44·645
a/264	BM 67/66 C	244·4	G.T.S. □ B.M. at Gummidipundi Travellers' Bungalow. Embedded in E. verandah, 2 feet from edge of plinth, and 1 foot from S.E. pillar of arch at S. end.	44·579	44·606
265	BM.68/66 C	245·3	Top of mile-stone No. 26 from Madras.	45·269	45·296
266	BM 69/66 C	246·3	Top of mile-stone No. 25 from Madras.	47·235	47·263
267	BM 70/66 C	247·3	Top of mile-stone No. 24 from Madras.	46·836	46·864
268	BM.71/66 C	248·3	Top of mile-stone No. 23 from Madras.	45·560	45·587
269	BM.72/66 C	249·3	Top of mile-stone No. 22 from Madras.	47·393	47·421
270	BM.73/66 C	249·4	M.S.D. 46·84 On stone embedded at E. parapet of bridge over Narayanavaram river. (P.W.D. bench-mark).	53·239	53·271
271	BM.74/66 C	250·3	Top of mile-stone No. 21 from Madras.	42·867	42·893
272	BM.75/66 C	251·3	Top of mile-stone No. 20 from Madras.	44·590	44·617
273	BM.76/66 C	252·3	Top of mile-stone No. 19 from Madras.	47·826	47·855
274	BM.77/66 C	253·3	Top of mile-stone No. 18 from Madras.	47·302	47·330
275	BM.78/66 C	255·3	M.S.D. 47·65 On stone alongside of mile-stone No. 16 from Madras. (P.W.D. bench-mark).	48·455	48·484
276	BM 79/66 C	256·3	Top of mile-stone No. 15 from Madras.	52·511	52·542
277	BM 80/66 C	257·3	Top of mile-stone No. 14 from Madras.	43·797	43·823
278	BM.81/66 C	258·2	Top of mile-stone No. 13 from Madras.	3 ·843	39·867

Main-Line 20. (Bezwada to Madras).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
279	BM 82 / 66 C	260·4	G.T.S. ○ B.M. On E. parapet wall of bridge between Red Hills lake and Naravarikuppam village.	38·998	39·021
a / 279	BM 83 / 66 C	260·6	G.T.S. □ B.M. at Naravarikuppam Travellers' Bungalow. Embedded between two doors, and flush with terrace floor of S. verandah.	40·813	40·838
b / 279	BM.84 / 66 C	261·2	M.S.D. 61·24 On stone fixed alongside mile-stone No. 12 from Madras. (P.W.D. bench-mark).	61·301	61·338
280	BM 85 / 66 C	261·2	Top of mile-stone No. 10 from Madras.	26·975	26·991
281	BM 86 / 66 C	262·2	Top of mile-stone No. 9 from Madras.	48·396	48·425
282	BM 87 / 66 C	263·2	Top of mile-stone No. 8 from Madras.	29·639	29·657
283	BM 88 / 66 C	264·2	Top of mile-stone No. 7 from Madras.	23·465	23·479
284	BM 89 / 66 C	265·2	Top of mile-stone No. 6 from Madras.	20·112	20·124
285	BM.12 / 66 C	266·7	G.T.S. □ B.M. Embedded at N. end of flooring of verandah of Sembian Police Station, ¾ mile N. of Perambur Railway Station near Lachmamma Chhattram on road to Nellore.	19·602	19·614
286	BM 11 / 66 C	270·3	G.T.S. ○ B.M. On E. cap of bridge No. 36 near telegraph post No. 5/12.	32·854	32·874
287	BM.14 / 66 C	273·5	G.T.S. ○ B.M. On S. parapet of bridge No. 18 near telegraph post No. 2/7.	16·543	16·553
288	BM 16 / 66 C	276·0	G.T.S. ○ B.M. On buttress of wall N. of N. gate-way leading into goods-shed, Rayapuram Railway Station.	14·272	14·280
289	BM 29 / 66 C	276·8	G.T.S. ○ B.M. On W. end of top step at S. end of main entrance under portico near "Packet Box" at General Post Office, Madras.	15·061	15·070
290	BM.30 / 66 C	277·0	G.T.S. ○ B.M. On 3rd step from bottom on E. side of Lord Cornwallis' fountain	14·623	14·632
291	BM.31 / 66 C	277·1	G.T.S. ○ B.M. On plinth W. side of memorial stone laid by the Prince of Wales at Port Health Office, Madras.	15·704	15·714

Main-Line 21. (Raichur to Gooty).

Designation of Bench-marks		Distance from Raichur	Description of Bench-marks	Corrected Elevation *	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 1 / 56 H	0·0	G.T.S. □ B.M. at Raichur Railway Station. Embedded opposite N. wall of tank-house situated between station building and G.I.P. Railway engine-shed. It is 9 feet and 320° from N.E. and 21 feet and 96° from N.W. corners of tank-house, 240 feet and 186° from centre of turn-table; and 209 feet and 300° from nearest edge of parapet of pakka well.	1309·396	1310·005
2	BM.2 / 56 H	1·6	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 440/15.	1286·005	1286·603
3	BM 3 / 56 H	3·2	G.T.S. ○ B.M. On stone coping of platform opposite N.W. corner of 3rd class waiting hall at Raichur Railway Station.	1313·744	1314·356
4	BM.4 / 56 H	4·3	G.T.S. ○ B.M. On W. parapet of bridge No. 1066 near telegraph post No. 349/7.	1299·903	1300·509
5	BM 5 / 56 H	5·0	G.T.S. ○ B.M. On W. parapet of culvert No. 1061 near telegraph post No. 348/10.	1296·238	1296·843
a/5	BM.6 / 56 H	6·4	G.T.S. ○ B.M. On E. parapet of culvert No. 1050 near telegraph post No. 347/6.	1264·421	1265·011
6	BM 7 / 56 H	6·9	G.T.S. ○ B.M. On W. parapet of culvert No. 1045 near telegraph post No. 346/13.	1262·188	1262·777
a/6	BM 8 / 56 H	9·4	G.T.S. ○ B.M. On W. parapet of culvert No. 1042 near telegraph post No. 344/7.	1238·658	1239·236
1a/6	BM.9 / 56 H	14·3	On upper surface of circular pillar of Maliabad G.T. Survey Hill Station, lat. 16° 8′ 8″·15, long. 77° 21′ 7″·14. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1763·856	1764·680
7	BM 10 / 56 H	11·2	G.T.S. ○ B.M. On W. parapet of bridge No. 1040 near telegraph post No. 342/9.	1224·610	1225·187
a/7	BM.11 / 56 H	13·4	G.T.S. ○ B.M. On W. parapet of bridge No. 1037 near telegraph post No. 340/4.	1212·027	1212·598
b/7	BM.12 / 56 H	13·8	G.T.S. □ B.M. at Matmari Railway Station. Embedded in platform opposite latrine on N. side of station building. It is 27 feet and 185° from N.E. and 17 feet and 32° from S.E. corners of latrine, 69 feet and 21° from N.E. corner of station building, 12 feet and 291° from B.M. No. c/7 and 13 feet from edge of platform.	1208·529	1209·098

* Deduced from the most recent levelling revision.

Main-Line 21 (Raichur to Gooty).

Designation of Bench-marks		Distance from Raichur	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
c/7	BM 13 / 56 H	13·8	G.T.S. ○ B.M.	at Matmari Railway Station. On stone coping of platform opposite latrine.	1209·060	1209·629
d/7	BM 44 / 57 E	15·5	G.T.S. ○ B.M.	On W. parapet of culvert No. 1028 near telegraph post No. 338/3.	1154·888	1155·432
8	BM 45 / 57 E	17·7	G.T.S. ○ B.M.	On W. parapet of culvert No. 1023 near telegraph post No. 336/2.	1128·816	1129·352
a/8	BM 46 / 57 E	19·9	B.M. □	at Tungabhadra Bridge. On S. end of E. parapet over 52nd pier from south. (Railway bench-mark).	1081·091	1081·604
b/8	BM 47 / 57 E	20·6	B.M. □	at Tungabhadra Bridge. On N. end of E. parapet over 16th pier from south. (Railway bench-mark).	1080·883	1081·396
9	BM 48 / 57 E	20·8	G.T.S. ○ B.M.	On stone coping of platform opposite booking office at Tungabhadra Railway Station.	1083·559	1084·076
10	BM.49 / 57 E	21·3	G.T.S. ○ B.M.	On W. parapet of bridge No. 1016 near telegraph post No. 332/8.	1081·188	1081·705
11	BM 50 / 57 E	23·5	G.T.S. ○ B.M.	On W. parapet of culvert No. 1014 near telegraph post No. 330/4.	1114·337	1114·871
12	BM 51 / 57 E	25·1	G.T.S. ○ B.M.	On W. parapet of culvert No. 1013 near telegraph post No. 328/9.	1168·005	1168·566
a/12	BM 52 / 57 E	25·6	G.T.S. ○ B.M.	On W. parapet of bridge No. 1012 near telegraph post No 328/1.	1166·808	1167·368
13	BM 53 / 57 E	26·5	G.T.S. ○ B.M.	On W. parapet of bridge No. 1011 near telegraph post No. 327/4.	1179·693	1180·259
a/13	BM.54 / 57 E	28·7	G.T.S. ○ B.M.	On W. parapet of culvert No. 1004 near telegraph post No. 325/5.	1222·401	1222·988
14	BM.55 / 57 E	29·0	G.T.S. □ B.M.	at Kosgi Railway Station. Embedded in platform opposite S. wall of station building. It is 12 feet and 249° from S.E. and 7 feet and 134° from S.W. corners of station building, 73 feet and 124° from S.E. corner of masonry base of home signal, 142 feet and 10° from S. end of platform, 24 feet from edge of platform, and 7 feet from wooden fencing.	1237·261	1237·857
a/14	BM.56 / 57 E	29·1	G.T.S. ○ B.M.	On stone paving of S. platform attached to home signal at Kosgi Railway Station.	1235·946	1236·542

Main-Line 21. (Raichur to Gooty).

Designation of Bench-marks			Distance from Raichur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
15		BM.57 / 57 E	30·4	G.T.S. ○ B.M. On N. abutment of culvert No. 996 near telegraph post No. 323/6.	1273·117	1273·732
16		BM 58 / 57 E	32·1	G.T.S. ○ B.M. On W. parapet of bridge No. 992 near telegraph post No. 321/11.	1280·342	1280·962
17		BM.59 / 57 E	33·3	G.T.S. ○ B.M. On N. abutment of culvert No. 990 near telegraph post No. 320/7.	1302·840	1303·472
18		BM.60 / 57 E	34·9	G.T.S. ○ B.M. On S. abutment of bridge No. 984 near telegraph post No. 318/13.	1297·853	1298·484
	a/18	BM.61 / 57 E	36·3	G.T.S. ○ B.M. On S. abutment of culvert No. 977 near telegraph post No. 317/7.	1328·457	1329·102
19		BM.62 / 57 E	37·4	G.T.S. ○ B.M. On stone coping of platform opposite home signal at Kupgal Railway Station.	1350·322	1350·979
20		BM.63 / 57 E	37·5	G.T.S. ○ B.M. On S. abutment of culvert No. 975 near telegraph post No. 316/3.	1347·165	1347·822
21		BM.64 / 57 E	37·9	G.T.S. ○ B.M. On N. abutment of bridge No. 974 near telegraph post No. 315/13.	1344·553	1345·209
	a/21	BM.65 / 57 E	38·6	G.T.S. ○ B.M. On N. abutment of culvert No. 972 near telegraph post No. 315/2.	1363·394	1364·059
	b/21	BM.66 / 57 E	40·1	G.T.S. ○ B.M. On N. abutment of culvert No. 963 near telegraph post No. 313/9.	1408·652	1409·339
	c/21	BM.67 / 57 E	42·0	G.T.S. ○ B.M. On S. abutment of culvert No. 958 near telegraph post No. 311/14.	1360·428	1361·092
	d/21	BM.68 / 57 E	42·5	↑ On N. abutment of culvert No. 956 near telegraph post No. 311/6 (Irrigation bench-mark.)	1361·072	1361·736
22		BM.69 / 57 E	42·7	G.T.S. ○ On stone slab at railway level crossing No. 316 near mile-stone No. 47 from Bellary.	1360·491	1361·159
	a/22	BM.70 / 57 E	44·5	↑ On S. parapet of bridge No. 947 near telegraph post No. 309/4 (Irrigation bench-mark).	1359·034	1359·701

Main-Line 21. (Raichur to Gooty).

Designation of Bench-marks		Distance from Raichur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
b/22	BM.71/57 E	46·1	G.T S. ○ B.M. On parapet of culvert close to and S. of railway level crossing No. AD/12 at Adoni.	1361·967	1362·636
c/22	BM.72/57 E	46·1	G.T S. ○ B.M. On parapet of culvert close to and N. of railway level crossing No. AD/12 at Adoni.	1361·637	1362·306
1c/22	BM 73/57 E	48·4	On top of rectangular protecting pillar of Adoni G.T. Survey Station, lat. 15° 38′ 50″·13, long. 77° 16′ 46″·49. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1996·741	1997·722
23	BM.74/57 E	46·1	G.T S. ○ B.M. On W. abutment of culvert No. 940 near telegraph post No. 307/10.	1362·542	1363·214
a/23	BM 75/57 E	46·3	G.T.S. ○ B.M. On stone paving of S. verandah of E. wing, Adoni Taluk Office.	1363·626	1364·298
24	BM.76/57 E	46·3	G.T S. ○ B.M. On stone coping of platform opposite 3rd class waiting hall, Adoni Railway Station.	1365·834	1366·507
25	BM 77/57 E	46·4	G.T.S. □ B.M. at Adoni Railway Station. Embedded near S E. corner of salt godown between station building and goods-shed. It is 16 feet and 206° from N.E corner of salt godown, 7 feet and 83° from S E. corner of platform, 17 feet and 343° from telegraph post No. 307/4, and 62 feet from wire fencing to N. of road to goods-shed.	1361·155	1361·826
a/25	BM 78/57 E	47·5	G.T.S. ○ B.M. On N. abutment of culvert No. 936 near telegraph post No. 306/3.	1384·753	1385·436
26	BM.79/57 E	48·8	G.T.S. ○ B.M. On S. abutment of bridge No. 933 near telegraph post No. 304/13.	1367·098	1367·775
27	BM 80/57 E	50·3	G.T.S. ○ B.M. On N. abutment of culvert No. 931 near telegraph post No. 303/6.	1400·910	1401·605
a/27	BM.81/57 E	51·0	G.T.S. ○ B.M. On W. parapet of bridge No. 928 near telegraph post No. 302/10.	1377·554	1378·237
28	BM.82/57 E	52·0	G.T.S ○ B.M. On N. abutment of culvert No. 926 near telegraph post No. 301/11.	1400·132	1400·828
29	BM.83/57 E	55·2	G T S. ○ B.M. On S. abutment of bridge No. 920 near telegraph post No. 298/8.	1445·602	1446·324

Main-Line 21. (Raichur to Gooty).

Designation of Bench-marks			Distance from Raichur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
30		BM.84 / 57 E	56·1	G.T.S. ○ B.M. On N. abutment of bridge No. 917 near telegraph post No. 297/9.	1469·192	1469·925
	a/30	BM.85 / 57 E	56·6	G.T.S. ○ B.M. On N. abutment of culvert No. 915 near telegraph post No. 297/2.	1490·213	1490·957
31		BM.86 / 57 E	58·7	G.T.S. ○ B.M. On N. abutment of culvert No. 911 near telegraph post No. 295/1.	1492·988	1493·736
	a/31	BM.87 / 57 E	58·9	G.T.S. □ B.M. at Aspari Railway Station. Embedded opposite S. wall of and 9 feet and 168° from S.E., and 10 feet and 42° from S.W. corners of station building, 46 feet and 310° from home signal, 59 feet and 42° from line-clear apparatus, and 26 feet from edge of platform.	1495·619	1496·368
32		BM.88 / 57 E	59·9	G.T.S. ○ B.M. On S. abutment of bridge No. 909 near telegraph post No. 293/14.	1483·079	1483·823
33		BM.89 / 57 E	61·1	G.T.S. ○ B.M. On N. abutment of culvert No. 907 near telegraph post No. 292/9.	1518·527	1519·290
	a/33	BM.90 / 57 E	63·2	G.T.S. ○ B.M. On S. abutment of bridge No. 903 near telegraph post No. 290/7.	1481·491	1482·234
34		BM.91 / 57 E	65·8	G.T.S. ○ B.M. On stone coping of platform opposite booking office at Molagavalli Railway Station.	1532·420	1533·194
	a/34	BM.92 / 57 E	66·8	G.T.S. ○ B.M. On N. abutment of bridge No. 900 near telegraph post No. 286/14.	1512·903	1513·667
35		BM.93 / 57 E	69·4	G.T.S. ○ B.M. On S. abutment of bridge No. 896 near telegraph post No. 284/6.	1522·925	1523·699
36		BM.94 / 57 E	70·2	G.T.S. ○ B.M. On N. abutment of culvert No. 894 near telegraph post No. 283/8.	1543·428	1544·212
37		BM.95 / 57 E	71·0	G.T.S. ○ B.M. On S. abutment of bridge No. 891 near telegraph post No. 282/12.	1541·393	1542·177
38		BM.96 / 57 E	72·8	G.T.S. ○ B.M. On stone coping of platform opposite booking office at Nancherla Railway Station.	1552·830	1553·622

Main-Line 21. (Raichur to Gooty).

Designation of Bench-marks		Distance from Raichur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/38	BM.97/57 E	72·8	G.T.S. □ B.M. at Nancherla Railway Station. Embedded opposite S. wall of station building used as lavatory. It is 11 feet and 229° from S E., and 8 feet and 103° from S.W. corners of station building, 137 feet and 267° from S.W. corner of pointsmen's quarters, and 25 feet from edge of platform.	1551·751	1552·543
39	BM.98/57 E	74·0	G.T S. ○ B.M. On S. abutment of bridge No. 881 near telegraph post No. 279/10.	1530·555	1531·337
a/39	BM.99/57 E	75·4	↑ On N. abutment of bridge No. 878 near telegraph post No. 278/5 (Irrigation bench-mark).	1537·162	1537·947
40	BM.100/57 E	75·7	Top of mile-stone No. 278.	1539·456	1540·244
a/40	BM 101/57 E	78·5	G.T S. ○ B M. On stone coping of well in Govt. Telegraph Office compound, Guntakal.	1484·653	1485·413
41	BM.102/57 E	78·6	G T S. B ○M. On stone coping of platform opposite Govt. Railway Police Station, Guntakal.	1471·921	1472·676
a/41	BM.103/57 E	78·9	G.T.S. ○ B M. On W. side of verandah flooring of M. & S.M. Railway Dispensary & Hospital, Guntakal.	1470·461	1471·215
b/41	BM 104/57 E	79·3	No 2 R L. B F=21 R L. F F=20 Found f M. On stone slab let into W. return wall of N. abutment of bridge near telegraph post No. 274/10.	1472·923	1473·679
42	BM 105/57 E	80·3	G T.S. ○ B.M. On S. parapet of bridge between telegraph posts Nos. 273/13 and 273/12.	1418·507	1419·236
43	BM 106/57 E	80·6	G.T S. ○ B M. On platform coping at Timmanacherla Railway Station.	1411·263	1411·988
a/43	BM.107/57 E	80·7	G T S. ○ B M. On platform coping 16 feet from B.M. No. 44, at Timmanacherla Railway Station.	1411·368	1412·093
44	BM 108/57 E	80·7	G.T S. □ B.M. at Timmanacherla Railway Station. Embedded in station platform. The following are distances and bearings of surrounding objects from bench-mark:—N.E. corner of railway station 169 feet, 289°; N.E. corner of station master's quarters 109 feet, 244°; S.E. corner of railway station 281° from bench-mark.	1410·691	1411·416
a/44	BM.109/57 E	81·1	⊙ On top of stone prism near telegraph post No. 272/13. The stone is marked ↗ on one face.	1386·339	1387·051
45	BM 110/57 E	82·0	G.T S. ○ B.M. On S parapet of culvert No. 865 near telegraph post No. 271/14.	1355·971	1356·668

Main-Line 21. (Raichur to Gooty).

Designation of Bench-marks		Distance from Raichur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
46	BM.111 / 57 E	82·7	G.T.S. ○ B.M. On S. parapet of bridge No. 861 near telegraph post No. 271/4.	1341·162	1341·851
47	BM.112 / 57 E	83·9	G.T.S. ○ B.M. On W. abutment of bridge near mile-stone No. 270.	1314·312	1314·987
48	BM.113 / 57 E	84·2	G.T.S. ○ B.M. On N. parapet of culvert No. 856 near telegraph post No. 269/11.	1308·149	1308·821
49	BM.114 / 57 E	85·0	G.T.S. ○ B.M. On S. parapet of culvert No. 852 between telegraph posts Nos. 268/14 and 268/13.	1289·681	1290·344
50	BM 115 / 57 E	85·4	G.T.S. ○ B.M. On S. parapet of bridge No. 850 between telegraph posts Nos. 268/9 and 268/8.	1284·632	1285·292
51	BM.116 / 57 E	86·3	G.T.S. ○ B.M. On E. abutment of bridge No. 845 between telegraph posts Nos. 267/11 and 267/10.	1275·196	1275·851
52	BM 117 / 57 E	87·5	G.T.S. ○ B.M. On N. parapet of culvert No. 843 between telegraph posts Nos. 266/6 and 266/5.	1261·387	1262·035
53	BM.118 / 57 E	89·1	G.T.S. ○ B.M. On platform coping near W. name-board, Patakottacheru Railway Station.	1232·572	1233·206
54	BM.119 / 57 E	89·9	G.T.S. ○ B.M. On abutment of bridge near telegraph post No. 264/1.	1217·949	1218·575
55	BM 120 / 57 E	90·9	G.T.S. ○ B.M. On S. parapet of bridge No. 834 near mile-stone No. 263.	1218·514	1219·141
56	BM.121 / 57 E	92·6	G.T.S. ○ B.M. On S. parapet of bridge No. 829 near telegraph post No. 261/4.	1236·908	1237·545
57	BM 122 / 57 E	95·0	G.T.S. ○ B.M. On S. parapet of culvert No. 826 near telegraph post No. 258/13.	1200·133	1200·751
58	BM.123 / 57 E	96·0	G.T.S. ○ B.M. On S. abutment of bridge No. 821 near telegraph post No. 257/14.	1200·896	1201·515

Main-Line 21. (Raichur to Gooty).

Designation of Bench-marks		Distance from Raichur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
59	BM 124 / 57 E	96·3	G.T.S. ○ B.M. On platform coping towards E. end of building, Gooty Railway Station.	1203·619	1204·239
60	BM.1 / 57 E	96·5	G.T.S. □ B.M. at Gooty Railway Station. Embedded 4 feet E. of E. wall of goods loading shed, about 6 inches below ground level. The following are distances and bearings of surrounding objects from bench-mark:—S.W. corner of goods loading shed 6 feet, 133° 30′; N.W. corner of same 32 feet, 23° 30′; telegraph post No. 257/7, 173 feet, 341° 20′. S.E. corner of engine-shed opposite station house bears 294° 50′ from bench-mark.	1199·031	1199·648

Main-Line 22. (Gulbarga to Raichur).

Designation of Bench-marks			Distance from Gulbarga	Description of Bench-marks	Corrected Elevation *	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.1 / 56 C	0·0	G.T.S. □ B.M. at Gulbarga Railway Station. Embedded to E. of station building just outside wooden platform fencing, with upper surface of stone about 6 inches below ground level. It is 69 feet and 71° from S E., and 64 feet and 89° from N.E. corners of main station building, 74 feet and 101° from N.E. corner of N. projection of main building, 29 feet and 251° from N.W., and 29 feet and 281° from S.W. corners of latrine, and 57 feet from edge of platform.	1488·714	1489·322
	a / 1	BM.2 / 56 C	0·1	G.T.S. ○ B.M. On stone flooring at N.E. corner of verandah of G.I.P. Railway Police Office at Gulbarga.	1490·791	1491·399
	b / 1	BM.3 / 56 C	0·4	G.T.S. ○ B.M. On stone flooring of verandah of E. entrance to travellers' bungalow at Gulbarga, 9 feet from S.W. and 8 feet from N.W. corners of same.	1490·952	1491·560
	c / 1	BM.4 / 56 C	0·7	G.T.S. ○ B.M. On stone flooring of verandah at W. entrance to Subadar's office at Gulbarga, 3 feet from N.E. and 17 feet from S.E corners of same.	1488·713	1489·321
	1 / 1	BM 5 / 56 C	0·1	G.T.S. ○ B.M. On 1st stone step of W. entrance to Imperial Post Office at Gulbarga.	1492·226	1492·835
	2 / 1	BM.6 / 56 C	0·7	G.T.S. ○ B.M. On stone coping of platform of Nizam's siding, to S. of Subadar's office at Gulbarga.	1488·433	1489·040
	3 / 1	BM.7 / 56 C	0·8	G.T.S. ○ B.M. On stone flooring of verandah at E. entrance to Subadar's office at Gulbarga, 16 feet from S.W. and 4 feet from N.W. corners of same.	1488·712	1489·320
2		BM.8 / 56 C	0·2	G.T.S. ○ B.M. at Gulbarga Railway Station. On W. end of stone coping of platform, 62 feet E. of W. edge above ramp.	1489·063	1489·671
	a / 2	BM.9 / 56 C	0·3	G.T.S. ○ B.M. On E. end of stone coping of platform at Gulbarga Railway Station.	1489·001	1489·609
	b / 2	BM.10 / 56 C	0·4	G T.S. ○ B.M. On stone coping of platform opposite booking office at Gulbarga Railway Station.	1488·907	1489·515
3		BM.11 / 56 C	0·7	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 353/9.	1475·842	1476·444
4		BM.12 / 56 C	2·3	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 355/3.	1460·930	1461·528
5		BM.13 / 56 C	4·2	G.T.S. ○ B.M. On W. parapet of bridge near telegraph post No. 356/19.	1526·810	1527·435

* Deduced from the most recent levelling revision.

Main-Line 22. (Gulbarga to Raichur).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
6	BM.14 / 56 C	6·3	G.T.S. ○ B.M.	On E. parapet of bridge near telegraph post No. 359/3.	1485·444	1486·054
7	BM 15 / 56 C	8·5	G.T.S. ○ B.M.	On W. parapet of bridge near telegraph post No. 361/6.	1420·657	1421·244
a/7	BM 16 / 56 C	9·1	G.T.S. ○ B.M.	On 1st pier from south of culvert, near telegraph post No. 361/17.	1396·775	1397·352
8	BM 17 / 56 C	9·6	G.T.S. ○ B.M.	On E. parapet of bridge near telegraph post No. 362/8.	1384·359	1384·932
9	BM 18 / 56 C	11·1	G.T.S. ○ B.M.	On N. parapet of bridge near telegraph post No. 363/18.	1365·774	1366·340
10	BM 19 / 56 C	12·2	G.T.S. ○ B.M.	On N. parapet of bridge near mile-post No. 365.	1342·322	1342·879
a/10	BM 20 / 56 C	13·6	G.T.S. ○ B.M.	On W. parapet of bridge near telegraph post No. 366/6.	1318·997	1319·544
b/10	BM 21 / 56 C	16·1	G.T.S. ○ B.M.	On N. abutment of bridge near telegraph post No. 368/16.	1292·354	1292·890
11	BM 22 / 56 C	16·5	G.T.S. ○ B.M.	On N. end of stone coping of platform at Shahabad Railway Station.	1308·356	1308·903
12	BM 23 / 56 C	16·6	G.T.S. □ B.M.	at Shahabad Railway Station. Embedded opposite S. wall of latrine to S. of station building. It is 8 feet and 203° from S.E., and 11 feet and 142° from S.W. corners of latrine; 100 feet and 8° from N.W., and 102 feet and 356° from N.E. corners of tank-house; 76 feet and 95° from N.E. corner of Railway Medical Officer's quarters; and 51 feet from edge of platform.	1307·932	1308·479
a/12	BM 24 / 56 C	16·6	G.T.S. ○ B.M.	On S. end of stone coping of platform at Shahabad Railway Station.	1308·168	1308·715
b/12	BM 25 / 56 C	16·7	G.T.S. ○ B.M.	On stone flooring of S. verandah of G.I.P. Railway Dispensary at Shahabad, 12 and 15 feet respectively from N.E. and S.E. corners of same.	1313·195	1313·744
13	BM 26 / 56 C	17·2		Top of mile-stone No. 370.	1302·297	1302·843
a/13	BM 27 / 56 C	18·0	G.T.S. ○ B.M.	On N. parapet of bridge (just where girders begin) over Kagna river, near telegraph post No. 370/15.	1291·134	1291·675
14	BM 1 / 56 C	20·6	G.T.S. ○ B.M.	On N. parapet of bridge near telegraph post No. 373/7.	1299·666	1300·212

Main-Line 22. (Gulbarga to Raichur).

Designation of Bench-marks			Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/14	BM.2/56G	23·0	G.T.S. □ B.M. at Wadi Railway Station. Embedded opposite N. wall of ticket collector's quarters. It is 8 feet and 327° from N.E., and 11 feet and 67° from N.W. corners of ticket collector's quarters; 66 feet and 172° from S.W., and 64 feet and 199° from S.E. corners of assistant station master's quarters.	1399·191	1399·779
	b/14	BM.3/56G	23·0	G.T.S. ○ B.M. On N. end of stone coping of platform at Wadi Railway Station.	1404·474	1405·064
15		BM.4/56G	23·0	G.T.S. ○ B.M. On stone coping of platform opposite booking office at Wadi Railway Station.	1404·529	1405·122
16		BM.5/56G	23·1	G.T.S. ○ B.M. On S. end of stone coping of platform at Wadi Railway Station.	1404·526	1405·119
17		BM.14/56H	24·5	G.T.S. ○ B.M. On N. abutment of culvert near telegraph post No. 377/4.	1374·685	1375·267
18		BM.15/56H	27·4	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 380/2.	1305·482	1306·037
19		BM.16/56H	28·3	Top of mile-stone No. 381.	1340·800	1341·371
20		BM.17/56H	28·8	G.T.S. ○ B.M. On S. abutment of drain near telegraph post No. 381/11.	1350·948	1351·524
21		BM.18/56H	29·9	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 382/12.	1324·869	1325·435
	a/21	BM.19/56H	31·4	G.T.S. B.M. ○ On N. end of stone coping of platform at Nalvar Railway Station.	1323·937	1324·502
22		BM.20/56H	31·4	G.T.S. ○ B.M. On stone paving of platform opposite booking office at Nalvar Railway Station.	1324·203	1324·770
	a/22	BM.21/56H	31·5	G.T.S. B.M. ○ On S. end of stone coping of platform at Nalvar Railway Station.	1324·004	1324·570
23		BM.22/56H	31·4	G.T.S. □ B.M. at Nalvar Railway Station. Embedded opposite S.E. corner of tank-house to S. of station building. It is 13 feet and 61° from S.E., and 39 feet and 147° from N.E. corners of tank-house; 79 feet and 156° from S.W. corner of wooden fencing of platform; and 97 feet and 340° from centre of W. parapet of drain.	1320·499	1321·064
	a/23	BM.23/56H	33·1	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 385/14.	1327·845	1328·413
	b/23	BM.24/56H	35·5	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 388/2.	1341·206	1341·780

Main-Line 22. (Gulbarga to Raichur).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
24	BM 25 / 56 H	37·4	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 390/2.	1297·657	1298·218
25	BM.26 / 56 H	39·1	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 391/17.	1253·116	1253·659
26	BM.27 / 56 H	42·5	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 395/3.	1245·678	1246·220
27	BM 28 / 56 H	43·8	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 396/9.	1233·095	1233·631
28	BM 29 / 56 H	45·9	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 398/13.	1194·351	1194·872
1/28	BM 30 / 56 H	50·5	On top of circular pillar of Naikal G.T. Survey Hill Station, lat. 16° 43′ 18″·22, long. 77° 4′ 28″·15. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1604·862	1605·561
29	BM 31 / 56 H	46·1	G.T.S. ○ B.M. On 4th pier from S. of bridge near telegraph post No. 398/16.	1189·818	1190·337
30	BM 32 / 56 H	47·1	G.T.S. □ B.M. at Yadgiri Railway Station. Embedded opposite window of N. wall of tank-house to N. end of station building. It is 11 feet and 270° from N.E., and 13 feet and 26° from N.W. corners of tank-house; 75 feet and 41° from S.E., and 72 feet and 49° from N E. corners of lime-shed; and 205 feet and 135° from up starting signal post.	1194·416	1194·938
31	BM.33 / 56 H	47·1	G.T.S. B.M. ○ On N. end of stone coping of platform at Yadgiri Railway Station.	1197·599	1198·123
a/31	BM 34 / 56 H	47·2	G.T.S. ○ B.M. On stone flooring of E. verandah opposite N.E. corner of 3rd class waiting hall at Yadgiri Railway Station.	1197·977	1198·501
32	BM.35 / 56 H	47·2	G.T.S. B.M. ○ On S. end of stone coping of platform at Yadgiri Railway Station.	1197·510	1198·034
a/32	BM 36 / 56 H	47·8	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 400/8.	1197·148	1197·671
b/32	BM 37 / 56 H	49·2	G.T.S. ○ B.M. On S. abutment of bridge near telegraph post No. 401/15.	1196·343	1196·866
c/32	BM 38 / 56 H	50·6	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 403/4.	1194·635	1195·157

Main-Line 22. (Gulbarga to Raichur).

Designation of Bench-marks			Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	d/32	BM.39/56 H	52·2	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 404/15.	1196·730	1197·253
33		BM.40/56 H	54·1	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 406/15.	1207·605	1208·138
34		BM.41/56 H	55·8	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 408/10.	1204·135	1204·667
35		BM.42/56 H	57·6	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 410/4.	1204·699	1205·233
	a/35	BM.43/56 H	58·5	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 411/1.	1224·511	1225·054
36		BM.44/56 H	60·3	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 412/18.	1218·474	1219·015
	a/36	BM.45/56 H	61·6	G.T.S. □ B.M. at Saidapur Railway Station. Embedded to N. of station building. It is 16 feet and 257° from N.E, and 7 feet and 17° from N.W. corners of tank-house; 186 feet and 138° from up-starting signal post; and 18 feet and 182° from S. edge of parapet of well.	1225·400	1225·944
37		BM.46/56 H	61·5	G.T.S. ○ B.M. On N. end of stone coping of platform at Saidapur Railway Station.	1227·939	1228·485
38		BM.47/56 H	61·6	G.T.S. ○ B.M. On S. end of stone coping of platform at Saidapur Railway Station.	1227·835	1228·381
	a/38	BM.48/56 H	62·9	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 415/9.	1206·163	1206·700
	b/38	BM.49/56 H	64·9	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 417/10.	1178·329	1178·853
39		BM 50/56 H	66·8	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 419/8.	1171·432	1171·958
40		BM 51/56 H	68·7	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 421/7.	1209·377	1209·921

Main-Line 22. (Gulbarga to Raichur).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
41	BM 52 / 56 H	70·9	G.T.S. ○ B.M. On W. parapet of bridge near telegraph post No. 423/7.	1176·171	1176·703
a/41	BM 53 / 56 H	74·4	G.T.S. ○ B.M. On stone paving of platform opposite booking office at Kistna Railway Station.	1137·510	1138·024
b/41	BM 54 / 56 H	74·4	G.T.S. ○ B.M. On first step from bottom of entrance doorway at Kistna Railway Station.	1135·753	1136·266
1b/41	BM 55 / 56 H	80·6	On top of circular pillar of Kottapalle G.T. Survey Hill Station, lat. 16° 28′ 19″·48, long. 77° 22′ 59″·35. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1570·445	1571·155
42	BM 56 / 56 H	74·3	G.T.S. ○ B.M. On S. end of stone coping of platform at Kistna Railway Station.	1137·436	1137·953
a/42	BM 57 / 56 H	74·4	G.T.S. ○ B.M. On N. end of stone coping of platform at Kistna Railway Station.	1137·465	1137·982
43	BM 58 / 56 H	74·6	Top of mile-stone No. 427.	1138·487	1139·005
a/43	BM 59 / 56 H	74·9	Top of pillar of N. abutment of Kistna viaduct. The letters G.T.S. B.M. have been cut on N. face of pillar.	1142·628	1143·148
b/43	BM 60 / 56 H	75·7	Top of pillar of S. abutment of Kistna viaduct. The letters G.T.S. B.M. have been cut on S. face of pillar.	1142·615	1143·135
44	BM 61 / 56 H	76·5	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 428/19.	1131·473	1131·990
45	BM 62 / 56 H	78·6	Top of mile-stone No. 431.	1180·461	1181·003
a/45	BM 63 / 56 H	79·8	G.T.S. ○ B.M. at Chiksugur Railway Station. On N. end of stone coping of platform, 30 feet S. of N. edge above ramp.	1172·007	1172·545
b/45	BM 64 / 56 H	79·8	G.T.S. □ B.M. at Chiksugur Railway Station. Embedded opposite N. wall of station building. It is 11 feet and 269° from N.E., and 15 feet and 41° from N.W. corners of station building; 91 feet and 142° from N.E. corner of wooden fencing of platform; 49 feet and 124° from S.E., and 56 feet and 112° from S.W. corners of 3rd class waiting shed, and 43 feet from edge of platform.	1169·979	1170·516
46	BM 65 / 56 H	79·8	G.T.S. ○ B.M. On S. end of stone coping of platform at Chiksugur Railway Station.	1171·674	1172·213
47	BM 66 / 56 H	80·9	G.T.S. ○ B.M. On N. abutment of bridge near telegraph post No. 433/6.	1140·593	1141·118

Main-Line 22. (Gulbarga to Raichur).

Designation of Bench-marks			Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
48		BM 67 / 56 H	84·0	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 436/8.	1220·204	1220·768
	a/48	BM.68 / 56 H	84·4	G.T.S. ○ B.M. On N. end of stone coping of platform at Raichur Cantonment Railway Station.	1229·226	1229·794
49		BM.69 / 56 H	84·4	G.T.S. ○ B.M. On S. end of stone coping of platform at Raichur Cantonment Railway Station.	1230·401	1230·969
	a/49	BM 70 / 56 H	86·9	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 439/5.	1266·099	1266·684
50		BM.2 / 56 H	88·3	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 440/15.	1286·005	1286·603
	a/50	BM.71 / 56 H	88·9	G.T.S. ○ B.M. On stone flooring of verandah of E. wing of Nizam's kachahri at Raichur, 9 and 15 feet respectively from N.W. and S.W. corners of verandah.	1331·157	1331·775
	b/50	BM.72 / 56 H	88·9	G.T.S. ○ B.M. On stone flooring of E. portion of N. main entrance verandah of Nizam's kachahri at Raichur, 6 and 2 feet respectively from N.E. and S.E. corners of main wall.	1330·992	1331·610
	1/50	BM.73 / 56 H	88·9	G.T.S. ○ B.M. On stone flooring of verandah of S. main entrance of Nizam's kachahri at Raichur, 9 and 19 feet respectively from S.W. and S.E. corners of main wall.	1331·077	1331·695
	2/50	BM 74 / 56 H	89·0	G.T.S. Standard Bench Mark 1907 at Raichur. Situated on a knoll of granite very close to Meteorological shed, N. of District Engineer's office and E. of Nizam's kachahri. It is 252 feet from N.W. corner of wall enclosing a grave and 31 feet from centre of rain gauge.	1314·401	1315·011
51		BM.1 / 56 H	89·9	G.T.S. □ B.M. at Raichur Railway Station. Embedded opposite N. wall of tank-house situated between station building and G.I.P. Railway engine-shed. It is 9 feet and 320° from N.E. and 21 feet and 95° from N.W. corners of tank-house, 240 feet and 186° from centre of turn-table and 209 feet and 300° from nearest edge of parapet of pakka well.	1309·396	1310·005

Main-Line 23. (Bellary to Raichur).

Designation of Bench-marks		Distance from Bellary	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 8 / 57 A	0·0	G.T.S. ○ B.M. at Bellary. Cut on a big flooring stone of a paved drain carrying water of ditch round fort to great tank, on road round glacis of fort, and N.E. of E. fort gate. It is on W. side of road, 70 feet N. of junction with fort main road and 119 feet N.W. of C.B. pillar No. 1.	1480·254	1481·016
2	BM.7 / 57 A	0·5	Rail at Bellary Railway Station opposite large archway at W. end of station building, and 112 feet from W. end of platform.	1481·545	1482·308
3	BM 79 / 57 A	2·4	T at base of mile-stone No. 2 on Bellary-Adoni high road; the summit of which is 3·18 feet above mark.	1455·801	1456·551
4	BM 80 / 57 A	4·4	G.T.S. ○ B.M. On rock *in situ* on W. side of road, not far from Sanganakallu village, about 50 paces from mile-stone No. 4 from Bellary.	1454·944	1455·692
5	BM.81 / 57 A	6·6	T at base of mile-stone No. 6, the summit of which is 4·96 feet above mark.	1404·938	1405·659
6	BM 82 / 57 A	7·6	T at base of mile-stone No. 7, the summit of which is 4·83 feet above mark.	1400·944	1401·663
7	BM.83 / 57 A	10·4	T at base of mile-stone No. 10, the summit of which is 3·90 feet above mark.	1315·257	1315·930
8	BM 125 / 57 E	11·5	G.T.S. ○ B.M. On stone plinth at W. side of bridge at mile-stone No. 11.	1310·011	1310·682
9	BM.126 / 57 E	16·6	T at base of mile-stone No. 16.	1319·143	1319·817
10	BM 127 / 57 E	18·5	G.T.S. ○ B.M. On rock *in situ* on W. side of road, near mile-stone No. 18.	1348·628	1349·316
11	BM.128 / 57 E	19·5	G.T.S. ○ B.M. On stone slab in upper course of a small tank at Annamantharaya's temple, near mile-stone No. 19.	1375·124	1375·824
12	BM.129 / 57 E	21·6	T at base of mile-stone No. 21.	1342·136	1342·818
13	BM.130 / 57 E	22·6	T at base of mile-stone No. 22, the summit of which is 3·67 feet above mark.	1361·119	1361·809
14	BM.131 / 57 E	24·6	G.T.S. ○ B.M. On rock *in situ* at mile-stone No. 24 at Kurawahalli village.	1406·715	1407·426
15	BM 132 / 57 E	25·5	T at base of mile-stone No. 25.	1437·403	1438·128
16	BM.138 / 57 E	26·5	T at base of mile-stone No. 26, the summit of which is 2·85 feet above mark.	1446·889	1447·618

Main-Line 23. (Bellary to Raichur).

Designation of Bench-marks			Distance from Bellary	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
17		BM.134 / 57 E	28·6	⊤ at base of mile-stone No. 28, the summit of which is 3·30 feet above mark.	1504·838	1505·595
	a / 17	BM 135 / 57 E	29·6	G.T.S. ○ B.M. On stone step of Alur travellers' bungalow; 1 foot below floor level of verandah.	1492·687	1493·438
18		BM.136 / 57 E	29·5	G.T.S. ○ B.M. On rock *in situ* at junction of Bellary-Adoni and Bellary-Kurnool roads, about 2 miles from Alur, and at 7th furlong-stone between mile-stones Nos. 28 and 29 from Bellary.	1521·277	1522·041
19		BM.137 / 57 E	31·3	G.T.S. ○ B.M. On stone slab in front of Pettah Barsappah's temple at Halebid village.	1520·734	1521·496
20		BM.138 / 57 E	33·5	⊤ at base of mile-stone No. 33, the summit of which is 3·24 feet above mark.	1405·302	1406.003
21		BM 139 / 57 E	35·6	⊤ at base of mile-stone No. 35, the summit of which is 3·27 feet above mark.	1402·811	1403·510
22		BM 140 / 57 E	36·9	[I·I] On top of Revenue Survey boundary pillar defining Adoni and Alur taluks; it is on N. bank of a nala and between 1st and 2nd furlong-stones in 36th - 37th mile from Bellary.	1340·773	1341·439
23		BM.141 / 57 E	38·7	⊤ at base of mile-stone No. 38, the summit of which is 3·82 feet above mark.	1321·500	1322·157
24		BM.142 / 57 E	39·0	[I·I] On top of Revenue Survey boundary pillar between 2nd and 3rd furlong-stones in 38th - 39th mile from Bellary.	1339·000	1339·664
25		BM.143 / 57 E	39·7	⊤ at base of mile-stone No. 39, the summit of which is 4·55 feet above mark.	1361·132	1361·807
26		BM.144 / 57 E	40·2	G.T.S. ○ B.M. On rock *in situ* on E. side of road, close to a high platform (for field watchmen), nearly opposite 4th furlong-stone between mile-stones Nos. 39 and 40 from Bellary, and abreast of Dainapur village.	1330·035	1330·695
27		BM.145 / 57 E	40·7	[I·I] On top of Revenue Survey boundary pillar on N. bank of a nala and near mile-stone No. 40 from Bellary.	1313·385	1314·035
28		BM 146 / 57 E	41·1	[⊙] On top of Revenue Survey boundary pillar between 3rd and 4th furlong-stones in 40th - 41st mile from Bellary.	1324·382	1325·037
29		BM.147 / 57 E	41·7	⊤ at base of mile-stone No. 41, the summit of which is 3·90 feet above mark.	1334·162	1334·822
30		BM.148 / 57 E	43·8	[I·I] On top of Revenue Survey boundary pillar near 1st furlong-stone between mile-stones Nos. 43 and 44 from Bellary.	1354·936	1355·604
31		BM.149 / 57 E	44·5	⊤ at base of mile-stone No. 44, the summit of which is 3·86 feet above mark.	1365·016	1365·689

Main-Line 23. (Bellary to Raichur).

Designation of Bench-marks		Distance from Bellary	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
32	BM.150 / 57 E	44·8	[I·I] On summit of Revenue Survey boundary pillar opposite 3rd furlong-stone, between mile-stones Nos. 44 and 45 from Bellary.	1351·981	1352·648
33	BM 151 / 57 E	46·5	T at base of mile-stone No. 46, the summit of which is 3·16 feet above mark.	1347·025	1347·688
34	BM 69 / 57 E	47·3	G T S. ○ B M. On stone slab at railway crossing No. 316, near mile-stone No. 47 from Bellary.	1360·491	1361·159
35	BM 152 / 57 E	48·1	[I·I] On summit of Revenue Survey boundary pillar near 5th furlong-stone between mile-stones Nos. 47 and 48 from Bellary.	1360·659	1361·327
36	BM 153 / 57 E	48·5	G T S. ○ B M On rock *in situ* near mile-stone No. 48 from Bellary, and abreast of Kadatote village.	1373·752	1374·427
37	BM.154 / 57 E	48·5	T at base of mile-stone No 48, the summit of which is 3·10 feet above mark.	1375·578	1376·254
38	BM 155 / 57 E	49·1	[I I] On top of Revenue Survey boundary pillar, between 4th and 5th furlong-stones, between mile-stones Nos. 48 and 49 from Bellary.	1396·182	1396·867
39	BM.156 / 57 E	50·5	G.T S. ○ B.M. On stone slab in upper step of pakka tank at E side of road, and opposite mile-stone No. 50 from Bellary.	1398·359	1399·044
40	BM 157 / 57 E	50·8	[I·I] On top of Revenue Survey boundary pillar near 2nd furlong-stone between mile-stones Nos. 50 and 51 from Bellary.	1404·012	1404·700
41	BM 158 / 57 E	53·7	T at base of mile-stone No. 53, the summit of which is 2·87 feet above mark.	1304·601	1305·238
42	BM 159 / 57 E	54·7	T at base of mile-stone No. 54, the summit of which is 3·60 feet above mark.	1279·251	1279·874
a / 42	BM 160 / 57 E	55·6	G.T S. ○ B.M. On stone step of D.P.W. bungalow at Hira Tambal village.	1260·102	1260·716
43	BM 161 / 57 E	55·7	T at base of mile-stone No. 55, the summit of which is 2·72 feet above mark.	1254·294	1254·905
44	BM 162 / 57 E	57·6	[I·I] On top of Revenue Survey boundary pillar near 7th furlong-stone between mile-stones Nos. 56 and 57 from Bellary.	1223·119	1223·713
45	BM 163 / 57 E	58·7	T at base of mile-stone No. 58, the summit of which is 3·30 feet above mark.	1217·806	1218·397
46	BM 164 / 57 E	59·1	G.T.S. ○ B.M. On rock *in situ* on E. side of road, and near 3rd furlong-stone between mile-stones Nos. 58 and 59 from Bellary; it is at end of and in a line with embankment of a large tank near Chikka Tambal village.	1219·722	1220·314

Main-Line 23. (Bellary to Raichur).

Designation of Bench-marks		Distance from Bellary	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
47	BM 165 / 57 E	59·7	[I·I] On top of Revenue Survey boundary pillar on W. side of road, and near mile-stone No. 59 from Bellary.	1214·561	1215·149
48	BM.166 / 57 E	60·7	T at base of mile-stone No. 60, the summit of which is 3·69 feet above mark.	1206·752	1207·336
49	BM 167 / 57 E	62·0	[I·I] On top of Revenue Survey boundary pillar near 2nd furlong-stone, between mile-stones Nos. 61 and 62 from Bellary.	1166·565	1167·129
50	BM.168 / 57 E	62·7	○ On summit of mile-stone No. 62.	1151·946	1152·502
51	BM.169 / 57 E	63·0	[I·I] On top of Revenue Survey boundary pillar near 2nd furlong-stone, between mile-stones Nos. 62 and 63 from Bellary.	1155·552	1156·110
52	BM.170 / 57 E	64·4	[⊙] On top of Revenue Survey boundary pillar between 4th and 5th furlong-stones between mile-stones Nos. 63 and 64 from Bellary.	1141·426	1141·976
53	BM.171 / 57 E	64·7	T at base of mile-stone No. 64, the summit of which is 2·65 feet above mark.	1128·195	1128·739
54	BM.172 / 57 E	65·9	G.T.S. ○ B.M. On rock *in situ* near 1st furlong-stone between mile-stones Nos. 65 and 66 from Bellary.	1113·655	1114·191
55	BM.173 / 57 E	67·7	T at base of mile-stone No. 67, the summit of which is 3·85 feet above mark.	1100·641	1101·169
56	BM.174 / 57 E	68·4	[I·I] On top of Revenue Survey boundary pillar near 5th furlong-stone, between mile-stones Nos. 67 and 68 from Bellary.	1108·101	1108·632
57	BM.175 / 57 E	69·9	G.T.S. ○ B.M. On rock *in situ* on E. side of road, at Madavaram village and near 1st furlong-stone, between mile-stones Nos. 69 and 70 from Bellary.	1077·537	1078·052
58	BM.176 / 57 E	70·3	G.T.S. ○ B.M. On stone step at E. side of Madavaram Travellers' Bungalow.	1070·567	1071·078
59	BM.177 / 57 E	70·7	[I·I] On top of Revenue Survey boundary pillar on right bank of Tungabhadra river, and near mile-stone No. 70 from Bellary.	1045·415	1045·913
60	BM.178 / 57 E	72·0	Top of mile-stone No. 19.	1055·264	1055·766
61	BM.179 / 57 E	73·0	Top of mile-stone No. 18.	1078·128	1078·640
62	BM.75 / 56 H	74·0	Top of mile-stone No. 17.	1101·533	1102·055

Main-Line 23. (Bellary to Raichur).

Designation of Bench-marks		Distance from Bellary	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
63	BM.76 / 56 H	75·2	G.T.S. ○ B.M. On rock *in situ* at Penshilpar village and about a furlong from mile-stone No. 16.	1103·036	1103·559
64	BM.77 / 56 H	76·0	Top of mile-stone No. 15.	1111·307	1111·833
65	BM.78 / 56 H	78·0	Top of mile-stone No. 13.	1125·246	1125·777
66	BM.79 / 56 H	79·0	Top of mile-stone No. 12.	1152·162	1152·706
67	BM.80 / 56 H	80·0	Top of mile-stone No. 11.	1174·943	1175·498
68	BM.81 / 56 H	80·2	G.T.S. ○ B.M. On rock *in situ* on W. side of road, at the entrance to Yerragiri village and about a furlong from mile-stone No. 11.	1180·354	1180·910
69	BM 82 / 56 H	82·0	Top of mile-stone No. 9.	1197·051	1197·614
70	BM.83 / 56 H	88·1	Top of mile-stone No. 3.	1353·962	1354·593
71	BM 84 / 56 H	89·1	Top of mile-stone No. 2.	1350·448	1351·077
72	BM.85 / 56 H	90·9	G.T.S. ○ B.M. On rock *in situ* opposite entrance gate of Raichur Railway Station compound, 58 paces from gate and 45 paces from police station. A pillar has been erected alongside bench-mark.	1324·672	1325·288
73	BM 86 / 56 H	91·1	Rail at Raichur Railway Station opposite signal staff.	1310·218	1310·827
74	BM.1 / 56 H	91·2	G.T.S. □ B.M. at Raichur Railway Station. Embedded opposite N. wall of tank-house situated between station building and G.I P. Railway engine-shed. It is 9 feet and 320° from N.E. and 21 feet and 95° from N.W. corners of tank-house, 240 feet and 186° from centre of turn-table and 209 feet and 300° from nearest edge of parapet of pakka well.	1309·396	1310·005

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.1 / 56 C	0·0	G.T.S. □ B.M. at Gulbarga Railway Station. Embedded to E. of station building just outside wooden platform fencing, about 6 inches below ground level. It is 69 feet and 71° from S.E., and 64 feet and 89° from N.E. corners of main station building; 74 feet and 101° from N.E. corner of N. projection of same; 29 feet and 251° from N.W. and 29 feet and 281° from S.W. corners of latrine, and 57 feet from edge of platform.	1488·714	1489·322
2	BM.28 / 56 C	1·6	G.T.S. ○ B.M. On N. end of road wall adjoining dam of Bamanpura tank at Gulbarga.	1506·437	1507·050
3	BM.29 / 56 C	1·9	G.T.S. ○ B.M. On S.E. corner of plinth of W. pillar, of main arch of entrance to Ashrafganj (Mahbub bazar), Gulbarga.	1548·078	1548·708
4	BM.30 / 56 C	2·1	G.T.S. ○ B.M. On 3rd step at E. entrance to circular pakka cistern in centre of Ashrafganj (Mahbub bazar), Gulbarga.	1549·730	1550·359
a/4	BM.31 / 56 C	10·2	G.T.S. ○ B.M. On flooring at entrance to 1st arch from S. side, of Virappa Deo temple; 10 chains E. of mile-stone No. 126 and ½ mile E. of Aurad village. The temple is situated in a clump of trees.	1575·116	1575·755
5	BM.32 / 56 C	13·8	G.T.S. ○ B.M. On floor of front verandah of travellers' bungalow near S.W. corner of S. room at Kurukota village.	1455·765	1456·344
6	BM.33 / 56 C	20·2	Top of mile-stone No. 116 from Hyderabad.	1562·343	1562·960
7	BM.6 / 56 G	21·9	G.T.S. □ B.M. Embedded near N.W. end of Mahadeo's or Sangameswar's temple, ¼ mile N. of Kamlapur village and 8 chains E. of main road. It is 12 links from N.W. corner of angle formed by W. wall and wing of building. The letters B.M. are cut on wall. The temple lies about ½ chain due W. of Nandi or Pond Basappa's temple.	1574·199	1574·819
a/7	BM.34 / 56 C	21·9	G.T.S. ○ B.M. On basement of Nandi or Pond Basappa's temple at S. side of entrance about ¼ mile N. of Kamlapur.	1576·668	1577·289
8	BM.7 / 56 G	22·4	Top of mile-stone No. 114 from Hyderabad.	1606·376	1607·007
9	BM.8 / 56 G	23·4	Top of mile-stone No. 113 from Hyderabad.	1622·048	1622·684
10	BM.9 / 56 G	26·5	Top of mile-stone No. 110 from Hyderabad at Khendivadi chauki, on top of ghat.	2073·691	2074·500
11	BM.10 / 56 G	28·6	Top of mile-stone No. 108 from Hyderabad.	1913·096	1913·840

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/11	BM 11/56 G	29·9	G.T.S. ○ B.M. On bottom step leading up to S. room at E. side of travellers' bungalow at Kinni village.	1859·810	1860·534
12	BM.12/56 G	31·0	G.T.S. ○ B.M. On S.W. corner of plinth of Mahadeo's temple, at N.E. end of Haddikihal or Halliked village, and about 1 chain N. of Hanuman's temple on E. side of main road.	1847·592	1848·309
13	BM 13/56 G	31·7	Top of mile-stone No. 105 from Hyderabad.	1913·228	1913·970
14	BM.14/56 G	32·7	Top of mile-stone No. 104 from Hyderabad.	1912·853	1913·593
15	BM.15/56 G	35·7	Top of mile-stone No. 101 from Hyderabad.	2164·058	2164·891
16	BM 16/56 G	36·7	A stone marked 99 embedded beside mile-stone No. 100 from Hyderabad, about 1 foot above ground.	2107·520	2108·329
17	BM 17/56 G	38·3	○ On S. parapet of bridge at junction of Sholapur and Gulbarga roads.	2084·315	2085·113
18	BM 18/56 G	38·7	G.T.S. ○ B.M. On S. parapet of bridge at mile-stone No. 98 from Hyderabad.	2054·006	2054·793
19	BM.19/56 G	39·4	G.T.S. ○ B.M. On S. parapet of bridge, 27 chains W. of mile-stone No. 97 from Hyderabad.	2039·985	2040·766
20	BM 20/56 G	39·7	Top of mile-stone No. 97 from Hyderabad.	2048·635	2049·420
21	BM 21/56 G	40·1	G.T.S. □ B.M. Embedded immediately opposite N. wall of Nandi or Basvanna's temple, the larger one of two temples lying about 1 chain S of main road, and 10 chains S.W. of S W. bastion of fort at Homnabad, 9 and 11 feet respectively from N.E. and N W. corners of basement of Nandi or Basvanna's temple, and 34 feet S.E. from door of Mahadeo's temple adjacent to it.	2084·928	2085·727
a/21	BM.22/56 G	40·1	G.T S. ○ B.M. On basement opposite N. wall of Nandi's temple, about 10 chains S.W. of S.W. bastion of Homnabad fort.	2088·079	2088·879
22	BM.23/56 G	41·6	G.T S. ○ B M. On S. parapet of bridge at mile-stone No. 95 from Hyderabad.	2023·388	2024·163
23	BM 24/56 G	41·8	G.T.S. ○ B.M. On S.W. corner of cattle-trough of Channappa patel's well at S.E. end of a mango grove on N margin of main road, and 17 chains E. of mile-stone No. 95 from Hyderabad.	2020·238	2021·012

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
24	BM.25 / 56 G	43·9	G.T.S. ○ B.M. On N. parapet of bridge, 26 chains E. of mile-stone No. 93 and at S.E. end of Hudgi village.	1986·026	1986·789
25	BM.26 / 56 G	45·6	G.T.S. ○ B.M. On N. parapet of bridge, at mile-stone No. 91 from Hyderabad.	1969·215	1969·971
26	BM.27 / 56 G	46·9	G.T.S. ○ B.M. On N. parapet of bridge, 23 chains E. of mile-stone No. 90 from Hyderabad.	1967·665	1968·419
27	BM.28 / 56 G	47·6	Top of mile-stone No. 89 from Hyderabad.	2032·444	2033·222
28	BM.29 / 56 G	48·6	Top of mile-stone No. 88 from Hyderabad.	2022·029	2022·805
29	BM.30 / 56 G	48·8	G.T.S. ○ B.M. On S. parapet of bridge, 18 chains E. of mile-stone No. 88 from Hyderabad.	2004·623	2005·393
30	BM.31 / 56 G	49·6	G.T.S. ○ B.M. On N. parapet of bridge, 4 chains W. of mile-stone No. 87 from Hyderabad.	1960·680	1961·433
31	BM.32 / 56 G	50·9	G.T.S. ○ B.M. On S. parapet of bridge, 28 chains E. of mile-stone No. 86 from Hyderabad and about ¼ mile E. of Talmadgi village.	1926·640	1927·380
32	BM.33 / 56 G	52·0	G.T.S. □ B.M. Situated between latrine and cook-room of travellers' bungalow at Mangalgi village on main road from Homnabad to Hyderabad, 7 feet W. of N.W. and S.W. corners of latrine, and 38 feet S.E. of N.E. corner of cook-room. The letters B.M. are cut on W. wall of latrine.	1958·547	1959·299
33	BM.34 / 56 G	57·0	G.T.S. ○ B.M. On S.E. corner of Musa Begam's masonry tomb at W. end of Aurad village.	1925·492	1926·227
34	BM.35 / 56 G	60·2	G.T.S. ○ B.M. On rock a foot above ground on right-hand side of path from Aurad to Karwad, and at its junction with cart-track to Mannali village. Khasampur tank lies about 20 chains to S.	2042·662	2043·440
35	BM.36 / 56 G	62·3	G.T.S. ○ B.M. On basement of Nandi or Basvanna's temple at S. side of Karwad village and ½ chain W. of Hanuman's temple.	2046·674	2047·452
36	BM.37 / 56 G	64·1	G.T.S. ○ B.M. On N.W. corner of Mahbub Subhani's chilla, a small masonry tomb 10 chains N.E. of Marjapur (Mirzapur) village and a chain S. of foot-path to Bider.	2040·005	2040·780
37	BM.38 / 56 G	66·0	G.T.S. ○ B.M. On E. wall, and about a chain from S.E. corner of tank situated about ½ mile N. of Kamtan village and near Virabhadra's temple.	2030·786	2031·556

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
38	BM.39 / 56 G	67·8	G.T.S. ○ B.M. On top of rectangular upright stone on W. side of foot-path to Bider, and about a chain W. of a conspicuous mango tree, 2 miles N.E. of Kamtan village, and ½ mile E. of Dhumsapur village.	2123·897	2124·700
39	BM.40 / 56 G	71·4	G.T.S. ○ B.M. On basement of pillar at N. end, and on a level with floor of Kali masjid, about ½ mile S.W. of Bider.	2203·749	2204·578
40	BM.41 / 56 G	71·9	G.T.S. □ B.M. Embedded outside enclosure and on W. side of steps leading into compound of travellers' bungalow at Bider, 10 chains W. of Shahaganj gate; 7 feet from S.W. corner of steps, 8 feet from corner formed by W. wall of steps, and W. portion of S. wall of compound, and 3 feet S. of letters B.M. on compound wall.	2202·040	2202·868
1/40	BM 42 / 56 G	71·9	G.T.S. ○ B.M. On topmost step of entrance to travellers' bungalow compound at Bider.	2206·080	2206·909
2/40	BM.43 / 56 G	73·9	○ On rock *in situ* at a nala, one chain N. of foot-path to Markhal, and a mile N. from Bider fort.	1975·186	1975·929
2a/40	BM.44 / 56 G	77·1	G.T.S. ○ B.M. On plinth on W. side of N. entrance to large dome, about ½ mile W. of Ashtur village, 10 chains N. of a batch of 8 or 9 other domes.	1908·610	1909·328
2b/40	BM 45 / 56 G	78·3	G.T.S. ○ B.M. On S.W. corner of plinth of large dome (the more northerly of two) situated about ½ mile E. of Ashtur village.	1872·652	1873·356
2c/40	BM.46 / 56 G	81·4	On top of rectangular protecting pillar of Bider Base-line East End Station, lat. 17° 53′ 33″·04, long. 77° 37′ 0″·18. A principal station of Great Arc Meridional Series—Section 18° to 24°. (For full description *see* Synoptical Volume).	1951·314	1952·048
3/40	BM 47 / 56 G	75·2	On top of rectangular protecting pillar of Bider Base-line W. End G.T. Survey Station, lat. 17° 57′ 34″·52, long. 77° 31′ 11″·13. A principal station of Great Arc Meridional Series—Section 18° to 24′. (For full description *see* Synoptical Volume).	1974·062	1974·804
41	BM.48 / 56 G	75·1	G.T.S. ○ B.M. On coping of E. parapet, over centre of S. arch of culvert, 330 yards S.E. of mile-stone No. 2 from Bider.	2146·154	2146·965
42	BM.49 / 56 G	81·9	G.T.S. □ B.M. at Ram Tirtha. Embedded with its top surface about ground level, outside enclosure wall of Vittoba Rukmabai temple, 7 feet N.W. of S.W. corner and 2 feet directly opposite letters B.M. cut on W. face. The temple is in centre of a group of trees, about midway between Ganjuti village and Ram Tirtha tank.	2049·019	2049·798
43	BM.50 / 56 G	84·0	G.T.S. ○ B.M. On E. end of topmost step at entrance to a well called "Ek Burjka Baoli", 86 feet W. of cart-track and close to three large banian trees; about a mile N. of Rukmapur village.	2031·802	2032·576

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
44	BM.51 / 56 G	86·1	B.○M. On rock *in situ* on E. margin of a stream, ¼ mile N.W. of Sidapur village, 71 feet S.E. by E. of Mahadeo's temple, and 60 feet S.E. of S.E. corner of a well close to temple.	2018·149	2018·920
1/44	BM.52 / 56 G	88·4	On top of circular pillar of Shilapalle, G.T. Survey Station, lat. 17° 46′ 13″·61, long. 77° 40′ 3″·76. A principal station of Great Arc Meridional Series—Section 18° to 24°. (For full description *see* Synoptical Volume.)	2191·281	2192·118
45	BM.53 / 56 G	89·8	G.T.S. ○ B.M. On S. corner of lowest of outer steps of platform at entrance to compound of Sangam travellers' bungalow.	1953·368	1954·118
a/45	BM.54 / 56 G	89·8	G.T.S. □ B.M. at Sangam Travellers' Bungalow. Embedded in floor of N. verandah of W. room of building, midway between two doors, and 2 feet away from wall, with its upper surface flush with floor.	1954·358	1955·108
46	BM.55 / 56 G	97·2	G.T.S. ○ B.M. On coping stone at E. side of platform of Mahadeo's temple situated at S.W. corner of Chelmeda village, 16 feet S. of well close to temple and 117 feet N.N.W. of Mahbub Subhani Pir (tomb).	1839·064	1839·774
47	BM.56 / 56 G	97·2	G.T.S. □ B.M. Embedded at S.W. corner of Chelmeda village, 18 feet E. of bench-mark No. 46 of this line, 30 feet S.E. of Mahadeo's temple well, and 117 feet N.N.E. of Mahbub Subhani Pir (tomb).	1835·416	1836·124
48	BM.57 / 56 G	100·8	○ On stone *in situ* marked with tar, 1 mile N.E. of B.M. No. 1/48.	1903·921	1904·658
1/48	BM.58 / 56 G	102·0	On top of rectangular protecting pillar of Goraigat, G. T. Survey Station, lat. 17° 39′ 36″·59, long. 77° 50′ 15″·47. A principal station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	2067·955	2068·755
49	BM.59 / 56 G	103·8	G.T.S. ○ B.M. On rock *in situ* on S. margin of road, 462 yards W. of mile-stone No. 45 from Hyderabad, and about ½ mile N.W. of Erur village.	1857·434	1858·155
50	BM.60 / 56 G	104·1	G.T.S.○B.M. On top of mile-stone No. 45 from Hyderabad.	1833·805	1834·518
51	BM.61 / 56 G	105·1	G.T.S.○B.M. On top of mile-stone No. 44 from Hyderabad.	1773·998	1774·688
52	BM.62 / 56 G	106·1	G.T.S.○B.M. On top of mile-stone No. 43 from Hyderabad.	1746·832	1747·512
53	BM.63 / 56 G	106·5	G.T.S. ○ B.M. On rock *in situ* on S. margin of road, 726 yards E. of mile-stone No. 43 from Hyderabad.	1759·343	1760·029

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
54	BM 64 / 56 G	107·5	G.T.S. ○ B.M. On rock *in situ* on S. margin of road, 770 yards E. of mile-stone No. 42 from Hyderabad.	1803·627	1804·331
55	BM 65 / 56 G	108·1	G.T.S.○B.M. On top of mile-stone No. 41 from Hyderabad.	1762·653	1763·341
56	BM 66 / 56 G	109·1	G.T.S.○B.M. On top of mile-stone No. 40 from Hyderabad.	1767·103	1767·794
57	BM 67 / 56 G	110·5	G.T.S. ○ B.M. On S.W. end of top of platform or steps at entrance to compound of Sadashivpet travellers' bungalow.	1757·385	1758·072
a / 57	BM 68 / 56 G	110·5	G.T.S. □ B.M. at Sadashivpet Travellers' Bungalow. Embedded in floor of S. verandah of building, with its top surface flush with floor: it is midway between two front doors, and 18 inches away from wall.	1757·096	1757·783
58	BM.69 / 56 G	111·1	G.T.S.○B.M. On top of mile-stone No. 38 from Hyderabad.	1737·142	1737·823
59	BM 1 / 56 K	114·1	G.T.S.○B.M. On top of mile-stone No. 35 from Hyderabad.	1690·292	1690·954
60	BM 2 / 56 K	115·1	G.T.S.○B.M. On top of mile-stone No. 34 from Hyderabad.	1720·448	1721·122
61	BM 3 / 56 K	116·4	G.T.S. ○ B.M. On N. parapet of road embankment, 484 yards E. of mile-stone No. 33 from Hyderabad.	1687·266	1687·929
62	BM.4 / 56 K	117·6	G.T.S. ○ B.M. On topmost step at entrance to masonry well on S. side of road, 792 yards W. of mile-stone No. 31 from Hyderabad.	1750·313	1751·001
63	BM.5 / 56 K	120·1	G.T.S.○B.M. On top of mile-stone No. 29 from Hyderabad.	1706·135	1706·805
64	BM.6 / 56 K	120·4	G.T.S. ○ B.M. at Kandi Travellers' Bungalow. On lowest step at N. entrance to E. room of building.	1738·560	1739·243
a / 64	BM.7 / 56 K	120·4	G.T.S. □ B.M. at Kandi Travellers' Bungalow. Embedded in N. verandah of E. room of building, with its top surface flush with floor, 7 feet from S.E. corner of verandah, and 2 feet away from wall.	1739·781	1740·465
65	BM 8 / 56 K	121·1	G.T.S.○B.M. On top of mile-stone No. 28 from Hyderabad.	1720·816	1721·492
66	BM.9 / 56 K	122·1	G.T.S.○B.M. On top of mile-stone No. 27 from Hyderabad.	1744·139	1744·826
67	BM.10 / 56 K	123·1	G.T.S.○B.M. On top of mile-stone No. 26 from Hyderabad.	1737·994	1738·679

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks			Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
68		BM.11 / 56 K	125·1	G.T.S.○B.M. On top of mile-stone No. 24 from Hyderabad.	1729·619	1730·301
69		BM.12 / 56 K	127·1	G.T.S. ○ B.M. On rock *in situ* on S. margin of road, 109 feet N.W. by W. of mile-stone No. 22 from Hyderabad.	1733·157	1733·840
70		BM 13 / 56 K	127·5	G.T.S. ○ B.M. On rock *in situ* on E. margin of cross-way from Laggadavaram village, 704 yards E. of mile-stone No. 22 from Hyderabad.	1744·099	1744·786
71		BM.14 / 56 K	128·1	G.T.S.○B.M. On top of mile-stone No. 21 from Hyderabad.	1742·943	1743·631
72		BM.15 / 56 K	129·8	G.T.S. ○ B.M. On S. parapet at E. abutment of bridge over Matangi nala, 9 feet from E. end of S. parapet and 616 yards W. of mile-stone No. 19 from Hyderabad.	1713·280	1713·958
73		BM.16 / 56 K	131·1	G.T.S. ○ B.M. On a stone slab on E. side of drain that crosses road, and 152 feet E. of mile-stone No. 18 from Hyderabad.	1737·828	1738·516
74		BM.17 / 56 K	131·7	G.T.S. ○ B.M. at Pattancharu Travellers' Bungalow. On top surface of platform or steps at entrance to enclosure of building.	1763·642	1764·342
	a / 74	BM.18 / 56 K	131·7	G.T.S. □ B.M. at Pattancharu Travellers' Bungalow. Embedded in floor of front or N. verandah of W. room of building midway between two doors, and 15 inches away from wall, with its upper surface flush with floor.	1762·266	1762·966
75		BM.19 / 56 K	133·2	G.T.S.○B.M. On top of mile-stone No. 16 from Hyderabad.	1797·786	1798·500
76		BM.20 / 56 K	136·7	○ at Lingampalle Railway Station (Nizam's State Railway). Marked with tar on platform coping in line with centre of middle arch and opposite door of booking office.	1836·538	1837·271
77		BM.21 / 56 K	136·7	G.T.S. □ B.M. at Lingampalle Railway Station (Nizam's State Railway). Embedded in a block of masonry on S. side of reservoir, which lies to E. of station, 14 and 6 feet respectively from S.E. and S.W. corners of reservoir, and 2 feet directly opposite to letters B.M. cut on its S. face.	1832·599	1833·330
78		BM.22 / 56 K	138·1	G.T.S. ○ B.M. On rock *in situ* on N. margin of road; it is at S.E. extremity of a group of rocks, ¼ mile E. of Gangavaram village and 418 yards W. of mile-stone No. 12 from Secunderabad.	1831·026	1831·757
79		BM.23 / 56 K	139·4	G.T.S. ○ B.M. On top of Hyderabad P.W.D. Central Division boundary stone at mile-stone No. 11 from Secunderabad.	1869·641	1870·387
80		BM.24 / 56 K	140·4	G.T.S.○B.M. On top of mile-stone No. 10 from Secunderabad.	1934·524	1935·296

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
81	BM.25 / 56 K	141·4	G.T.S.○B.M. On top of mile-stone No. 9 from Secunderabad.	1980·160	1980·950
82	BM.26 / 56 K	142·4	G.T.S ○B.M. On top of mile-stone No. 8 from Secunderabad.	1947·226	1948·005
83	BM.27 / 56 K	143·4	G.T.S.○B.M. On top of mile-stone No. 7 from Secunderabad.	1876·915	1877·666
84	BM 28 / 56 K	144·4	G.T.S.○B.M. On top of mile-stone No. 6 from Secunderabad.	1809·731	1810·455
85	BM 29 / 56 K	146·4	G.T.S.○B.M. On top of mile-stone No. 4 from Secunderabad.	1766·496	1767·202
86	BM 30 / 56 K	147·4	G.T.S.○B.M. On top of mile-stone No. 3 from Secunderabad.	1744·214	1744·912
87	BM 31 / 56 K	148·4	G.T.S.○B.M. On top of mile-stone No. 2 from Secunderabad.	1726·294	1726·986
88	BM 32 / 56 K	149·6	G.T.S. □ B.M. at Secunderabad Cantonment Travellers' Bungalow. Embedded in E. verandah flush with floor, and midway between door and window of S. room, and 1 foot from wall.	1731·900	1732·595
89	BM.33 / 56 K	149·6	G.T.S. ○ B.M. at Secunderabad Cantonment Travellers' Bungalow. On a flag-stone in pavement of front verandah, 7 feet N.E. of N.E. corner of building.	1731·813	1732·508
90	BM.34 / 56 K	150·0	G.T.S.○B.M. On top of mile-stone No. 5 from Residency at Chadarghat, Secunderabad.	1704·118	1704·801
1/90	BM 35 / 56 K	150·9	G.T S. ○ B.M. at Secunderabad Court-house. On 3rd step from bottom, at S. face of N. pillar, at front or W. entrance to building.	1778·947	1779·660
91		150·2	Destroyed.	1715·004	1715·692
92	BM.36 / 56 K	150·6	G.T.S. ○ B.M. at Secunderabad James Street Police Station and Clock Tower. On E. end of 3rd step from bottom, at N. entrance to building.	1706·430	1707·116
93	BM.37 / 56 K	150·6	G.T.S. ○ B.M. at Secunderabad James Street Police Station and Clock Tower. On E. end of topmost step, at S. entrance to building.	1709·522	1710·209
94	BM 38 / 56 K	151·3	G.T.S. ○ B.M. at Secunderabad. On N. end of 4th step from bottom, at W. entrance to enclosure of Abdul Haq's mother's tomb, 418 yards S. of mile-stone No. 4 from Residency at Chadarghat.	1695·193	1695·874

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
95	BM 39 / 56 K	151·7	G.T.S. ○ B.M. at Husain Sagar Tank Band. On centre step at N. entrance to police station, at N. end of tank band called Akhir Katta.	1695·096	1695·779
a/95	BM.40 / 56 K	152·4	G.T.S. ○ B.M. at Husain Sagar Tank Band. On a flag-stone at S. entrance to N. sluice gate.	1701·744	1702·430
96	BM.41 / 56 K	152·5	G.T.S. ○ B.M. at Husain Sagar Tank Band. On coping stone of a small pillar of parapet wall at S.E. corner of S. sluice gate, 41 feet N.W. of lamp-post No. 52.	1700·270	1700·955
97	BM.42 / 56 K	152·7	G.T.S. ○ B.M. at Husain Sagar Tank Band. On N. end of 2nd step from bottom at entrance to police station, at S. end of tank band called Shuru Katta.	1697·324	1698·008
1/97	BM.43 / 56 K	153·4	On the ⊙ on rock *in situ* at Naubatpahar, G. T. Survey Station, lat. 17° 24′ 19″·02, long. 78° 28′ 12″·69. A secondary station of Great Arc Meridional Series—Section 8° to 18°. (For full description *see* Synoptical Volume).	1859·609	1860·359
a/97	BM.44 / 56 K	153·9	G.T.S. ○ B.M. at Hyderabad St. George's Church, Chadarghat. On S. end of bottom step at front or W. entrance.	1665·987	1666·658
b/97	BM.45 / 56 K	153·9	⋀ 168·40 at Hyderabad St. George's Church, Chadarghat. A D.P.W. bench-mark, marked in tar on plinth of S. buttress at front entrance.	1667·465	1668·137
98	BM.46 / 56 K	154·8	G.T.S. ○ B.M. at Hyderabad Residency, Chadarghat. On centre of flag-stone at N. end of pavement at W. gate, 3 feet N.W. of post box pillar, and 6 feet S.W. of sentry box.	1622·211	1622·868
99	BM.47 / 56 K	154·9	G.T.S. ○ B.M. at Hyderabad Residency, Chadarghat. On rock *in situ* at W. end of a cluster of large rocks about midway between W. gate and Residency building, 555 feet N.W. of B.M. No. a/99.	1630·431	1631·091
a/99	BM.48 / 56 K	155·0	G.T.S. ○ B.M. at Hyderabad Residency, Chadarghat. On E. end of 8th step from bottom, or top of 1st flight of steps at N. entrance to building.	1623·275	1623·932
b/99	BM.49 / 56 K	155·0	G.T.S. ○ B.M. at Hyderabad Residency, Chadarghat. On W. end of 9th step from bottom or 1st step of 2nd flight, at N. entrance to building.	1623·732	1624·390
100	BM.50 / 56 K	155·7	G.T.S. ○ B.M. at Hyderabad. On stone coping of E. parapet of Oliphant's bridge over Musi river at Chadarghat, 7 feet N. of southernmost lamp pillar on the parapet.	1608·876	1609·528

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
101	BM.51 / 56 K	157·5	G.T.S. ○ B.M. at Rock A. On rock *in situ*, in centre of triangle formed by three other rocks on S. side of road, at N. foot of hill on which stands Nawab Bashir-ud-Dowlah's Asmangad, 26 feet S. of centre of road, and 44 yards S.E. of a small tank.	1627·282	1627·941
102	BM.52 / 56 K	157·8	G.T.S. ○ B.M. at Rock B. On rock *in situ* at junction of branch road from Nawab Bashir-ud-Dowlah's Asmangad with main road to Masulipatam (Machilipatnam), opposite a low hillock, surmounted by a group of large boulders and single tree.	1637·267	1637·930
103	BM 53 / 56 K	159·2	G.T.S. ○ B.M. On top of mile-stone No. 4 from Hyderabad.	1626·974	1627·635
104	BM 54 / 56 K	160·2	G.T.S.○B.M. On top of mile-stone No. 5 from Hyderabad.	1660·115	1660·789
105	BM.55 / 56 K	161·2	G.T.S.○B.M. On top of mile-stone No. 6 from Hyderabad.	1686·874	1687·559
106	BM 56 / 56 K	162·2	G.T.S.○B.M. On top of mile-stone No. 7 from Hyderabad.	1718·942	1719·640
107	BM 57 / 56 K	163·2	G.T.S.○B.M. On top of mile-stone No. 8 from Hyderabad.	1704·722	1705·416
108	BM 58 / 56 K	164·2	G.T.S.○B.M. On top of mile-stone No. 9 from Hyderabad.	1686·807	1687·494
109	BM 59 / 56 K	165·2	G.T.S.○B.M. On top of mile-stone No. 10 from Hyderabad.	1671·150	1671·830
110	BM.60 / 56 K	166·2	G.T.S.○B.M. On top of mile-stone No. 11 from Hyderabad.	1630·993	1631·657
111	BM.61 / 56 K	167·1	G.T.S. □ B.M. at Ambarpet Travellers' Bungalow. Embedded in front or N. verandah of W. room of building, flush with floor, midway between two doors and 2 feet from wall.	1612·842	1613·498
112	BM 62 / 56 K	167·1	G.T.S. ○ B.M. On N.E. corner of platform or steps at entrance to enclosure of Ambarpet Travellers' Bungalow.	1614·875	1615·532
113	BM.63 / 56 K	167·3	G.T.S.○B.M. On top of mile-stone No. 12 from Hyderabad.	1603·177	1603·829
114	BM 64 / 56 K	168·3	G.T.S.○B.M. On top of mile-stone No. 13 from Hyderabad.	1628·865	1629·530
115	BM.65 / 56 K	170·3	G.T.S.○B.M. On top of mile-stone No. 15 from Hyderabad.	1510·507	1511·123

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
116	BM.66 / 56 K	171·3	G.T.S.○B.M. On top of mile-stone No. 16 from Hyderabad.	1445·107	1445·697
117	BM.67 / 56 K	172·3	G.T.S.○B.M. On top of mile-stone No. 17 from Hyderabad.	1435·789	1436·376
118	BM.68 / 56 K	173·3	G.T.S.○B.M. On top of mile-stone No. 18 from Hyderabad.	1369·447	1370·007
119	BM.69 / 56 K	174·0	G.T.S. ○ B.M. On stone coping of W. parapet of Fraser's bridge over Batasingavaram stream, 63 feet N. of S. end of parapet and ¼ mile W. of mile-stone No. 19 from Hyderabad.	1336·168	1336·714
120	BM.70 / 56 K	174·3	G.T.S.○B.M. On top of mile-stone No. 19 from Hyderabad.	1353·127	1353·680
121	BM.71 / 56 K	175·3	G.T.S.○B.M. On top of mile-stone No. 20 from Hyderabad.	1366·132	1366·691
122	BM.72 / 56 K	175·5	G.T.S. ○ B.M. On lowest step in recess at N. side leading to top of Tuparampet masjid, 18 chains E. of mile-stone No. 20 from Hyderabad.	1390·476	1391·045
123	BM.73 / 56 K	176·3	G.T.S.○B.M. On top of mile-stone No. 21 from Hyderabad, and opposite D.P.W. central division boundary stone.	1442·047	1442·637
124	BM.74 / 56 K	177·3	G.T.S.○B.M. On top of mile-stone No. 22 from Hyderabad.	1508·629	1509·248
a / 124	BM.75 / 56 K	178·4	G.T.S. ○ B.M. at Malkapur Travellers' Bungalow. On 4th step from bottom, or 2nd step from top, of inner flight of steps leading into enclosure of building.	1485·872	1486·481
b / 124	BM.76 / 56 K	178·4	G.T.S. □ B.M. at Malkapur Travellers' Bungalow. Embedded in S. or front verandah of E. room of building flush with floor, midway between two doors, and 2 feet from wall.	1484·613	1485·222
125	BM.77 / 56 K	178·3	G.T.S.○B.M. On top of mile-stone No. 23 from Hyderabad.	1489·377	1489·987
126	BM.78 / 56 K	179·3	G.T.S.○B.M. On top of mile-stone No. 24 from Hyderabad.	1465·745	1466·346
127	BM.79 / 56 K	179·9	G.T.S. ○ B.M. On rock *in situ* on N. margin of road and midway between mile-stones Nos. 24 and 25 from Hyderabad.	1434·102	1434·690
128	BM 80 / 56 K	180·3	G.T.S.○B.M. On top of mile-stone No. 25 from Hyderabad.	1413·285	1413·864
129	BM.81 / 56 K	181·3	G.T.S.○B.M. On top of mile-stone No. 26 from Hyderabad.	1361·030	1361·588

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
130	BM.82 / 56 K	182·0	G.T.S. ○ B.M. On N. end of a large low rock *in situ*, 97 feet N. of road, 5 feet S.W. of S.E. corner of Almaspet masjid platform and 27 chains W. of mile-stone No. 27 from Hyderabad.	1349·837	1350·391
131	BM.83 / 56 K	182·4	G.T.S.○B.M. On top of mile-stone No. 27 from Hyderabad.	1354·787	1355·344
132	BM.84 / 56 K	183·4	G.T.S.○B.M. On top of mile-stone No. 28 from Hyderabad.	1277·094	1277·619
133	BM 85 / 56 K	184·4	G.T.S.○B.M. On top of mile-stone No. 29 from Hyderabad.	1229·385	1229·890
134	BM 86 / 56 K	185·4	G.T.S.○B.M. On top of mile-stone No. 30 from Hyderabad.	1182·496	1182·982
135	BM 87 / 56 K	186·4	G.T.S.○B.M. On top of mile-stone No. 31 from Hyderabad.	1157·315	1157·791
136	BM.88 / 56 K	187·4	G.T.S.○B.M. On top of mile-stone No. 32 from Hyderabad.	1129·945	1130·409
137	BM.89 / 56 K	188·4	G.T.S.○B.M. On top of mile-stone No. 33 from Hyderabad.	1101·400	1101·854
138	BM 90 / 56 K	189·4	G.T.S.○B.M. On top of mile-stone No. 34 from Hyderabad.	1065·640	1066·079
139	BM 91 / 56 K	190·4	G.T.S.○B.M. On top of mile-stone No. 35 from Hyderabad.	1050·865	1051·298
140	BM 92 / 56 K	191·4	G.T.S.○B.M. On top of mile-stone No. 36 from Hyderabad.	1049·876	1050·309
141	BM.93 / 56 K	191·8	G.T.S. ○ B.M. at Gundlarampalle Travellers' Bungalow. On 4th step from bottom, or 3rd step from top, of outer flight of steps leading into enclosure of building.	1041·187	1041·616
142	BM.94 / 56 K	191·8	G.T.S. □ B.M. at Gundlarampalle Travellers' Bungalow. Embedded in front or S. verandah of E. room of building, flush with floor, midway between two doors, and 2 feet from wall.	1041·786	1042·215
143	BM.1 / 56 O	192·4	G.T.S.○B.M. On top of mile-stone No. 37 from Hyderabad.	1062·966	1063·404
144	BM.2 / 56 O	193·4	G.T.S.○B.M. On top of mile-stone No. 38 from Hyderabad.	1040·628	1041·057
145	BM.3 / 56 O	194·4	G.T.S.○B.M. On top of mile-stone No. 39 from Hyderabad.	1079·205	1079·650
146	BM.4 / 56 O	195·4	G.T.S.○B.M. On top of mile-stone No. 40 from Hyderabad.	1098·319	1098·771

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
147	BM.5 / 56 O	197·4	G.T.S.○B.M. On top of mile-stone No. 42 from Hyderabad.	1045·487	1045·918
148	BM.6 / 56 O	198·4	G.T.S.○B.M. On top of mile-stone No. 43 from Hyderabad.	1062·301	1062·739
149	BM.7 / 56 O	199·4	G.T.S.○B.M. On top of mile-stone No. 44 from Hyderabad.	1072·141	1072·583
150	BM 8 / 56 O	200·4	G.T.S.○B.M. On top of mile-stone No. 45 from Hyderabad.	1029·717	1030·141
151	BM.9 / 56 O	201·4	G.T.S.○B.M. On top of mile-stone No. 46 from Hyderabad.	1005·534	1005·948
152	BM.10 / 56 O	202·4	G.T.S.○B.M. On top of mile-stone No. 47 from Hyderabad.	979·047	979·451
153	BM.11 / 56 O	203·4	G.T.S.○B.M. On top of mile-stone No. 48 from Hyderabad.	965·630	966·029
154	BM.12 / 56 O	204·4	G.T.S.○B M. On top of mile-stone No. 49 from Hyderabad.	937·449	937·836
155	BM.13 / 56 O	205·4	G.T.S.○B.M. On top of mile-stone No. 50 from Hyderabad.	918·897	919·277
a / 155	BM.14 / 56 O	205·5	G.T.S. ○ B.M. at Narkatpalle Travellers' Bungalow. On 4th step from bottom, or 2nd step from top, of outer flight of steps leading into enclosure of building.	908·271	908·647
b / 155	BM.15 / 56 O	205·5	G.T.S. □ B.M. at Narkatpalle Travellers' Bungalow. Embedded in front or S. verandah of E. room of building, flush with floor, midway between two doors, and 1 foot from wall.	906·464	906·839
156	BM.16 / 56 O	206·4	G.T.S.○B.M. On top of mile-stone No. 51 from Hyderabad.	888·152	888·520
157	BM.17 / 56 O	207·4	G.T.S.○B.M. On top of mile-stone No. 52 from Hyderabad.	898·500	898·872
158	BM.18 / 56 O	208·4	G.T.S.○B.M. On top of mile-stone No. 53 from Hyderabad.	840·442	840·790
159	BM.19 / 56 O	209·4	G.T.S.○B.M. On top of mile-stone No. 54 from Hyderabad.	813·913	814·251
160	BM 20 / 56 O	210·4	G.T.S.○B.M. On top of mile-stone No. 55 from Hyderabad.	800·791	801·123
161	BM 21 / 56 O	211·4	G.T.S.○B.M. On top of mile-stone No. 56 from Hyderabad.	774·544	774·866
162	BM.22 / 56 O	212·4	G.T.S.○B.M. On top of mile-stone No. 57 from Hyderabad.	758·816	759·132

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
163	BM.23 / 56 O	213·4	G.T.S.○B.M. On top of mile-stone No. 58 from Hyderabad.	735·763	736·069
164	BM 24 / 56 O	214·4	G.T.S.○B.M. On top of mile-stone No. 59 from Hyderabad.	724·733	725·035
165	BM.25 / 56 O	215·4	G.T.S.○B.M. On top of mile-stone No. 60 from Hyderabad.	731·024	731·328
166	BM.26 / 56 O	216·4	G.T.S.○B.M. On top of mile-stone No. 61 from Hyderabad.	701·391	701·683
167	BM 27 / 56 O	217·4	G.T.S. ○ B.M. at Aitpamla Travellers' Bungalow. On 4th step from bottom, or 2nd step from top, of outer flight of steps leading into enclosure of building.	695·362	695·651
168	BM.28 / 56 O	217·4	G.T.S. □ B.M. at Aitpamla Travellers' Bungalow. Embedded in front or N. verandah of E. room of building, flush with floor, midway between two doors, and 2 feet from wall.	694·546	694·835
169	BM 29 / 56 O	217·5	G.T.S.○B.M. On top of mile-stone No. 62 from Hyderabad.	696·896	697·186
170	BM 30 / 56 O	218·5	G.T.S.○B.M. On top of mile-stone No. 63 from Hyderabad.	683·924	684·208
171	BM 31 / 56 O	219·5	G.T.S.○B.M. On top of mile-stone No. 64 from Hyderabad.	698·068	698·358
172	BM 32 / 56 O	220·5	G.T.S.○B.M. On top of mile-stone No. 65 from Hyderabad.	706·800	707·094
173	BM.33 / 56 O	221·5	G.T.S.○B.M. On top of mile-stone No. 66 from Hyderabad.	675·897	676·178
174	BM 34 / 56 O	222·5	G.T.S.○B.M. On top of mile-stone No. 67 from Hyderabad.	659·182	659·456
175	BM.35 / 56 O	223·5	G.T.S ○B.M. On top of mile-stone No. 68 from Hyderabad.	663·876	664·152
176	BM 36 / 56 O	224·5	G.T.S ○B.M. On top of mile-stone No. 69 from Hyderabad.	679·083	679·365
177	BM 37 / 56 O	225·5	G.T.S.○B.M. On top of mile-stone No. 70 from Hyderabad.	668·407	668·685
178	BM 38 / 56 O	226·5	G.T.S.○B.M. On top of mile-stone No. 71 from Hyderabad.	634·139	634·403
179	BM 39 / 56 O	227·5	G.T.S.○B.M. On top of mile-stone No. 72 from Hyderabad.	621·004	621·262
a / 179	BM.40 / 56 O	227·6	G.T.S.○B.M. On plinth of Kotapalle Mahadeo's temple at S.W. corner.	609·974	610·228

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
180	BM.41 / 56 O	227·6	G.T.S. □ B.M. Embedded at S. side of Kotapalle Mahadeo's temple, 4 feet S.E. of B.M. No. a/179, and 3 feet from S. wall of temple on which letters B.M. are cut.	609·213	609·466
181	BM.42 / 56 O	228·5	G.T.S.○B.M. On top of mile-stone No. 73 from Hyderabad.	584·596	584·839
182	BM.43 / 56 O	229·6	G.T.S.○B.M. On top of mile-stone No. 74 from Hyderabad.	546·208	546·435
183	BM.44 / 56 O	230·6	G.T.S.○B.M. On top of mile-stone No. 75 from Hyderabad.	562·885	563·119
184	BM 45 / 56 O	231·6	G.T.S.○B.M. On top of mile-stone No. 76 from Hyderabad.	543·534	543·760
185	BM 46 / 56 O	232·6	G.T.S.○B.M. On top of mile-stone No. 77 from Hyderabad.	554·485	554·715
186	BM 47 / 56 O	233·6	G.T.S.○B.M. On top of mile-stone No. 78 from Hyderabad.	585·801	586·045
187	BM.48 / 56 O	234·6	G.T.S.○B.M. On top of mile-stone No. 79 from Hyderabad.	553·208	553·439
188	BM.49 / 56 O	235·6	G.T.S.○B.M. On top of mile-stone No. 80 from Hyderabad.	569·384	569·621
189	BM.50 / 56 O	235·7	G.T.S. ○ B.M. at Suriapet Travellers' Bungalow. On 4th step from bottom, or 2nd step from top, of outer flight of steps leading into enclosure of building.	572·284	572·523
a/189	BM.51 / 56 O	235·7	G.T.S. □ B.M. at Suriapet Travellers' Bungalow. Embedded in front verandah of S.E. room, flush with floor, midway between two doors, and 1 foot from wall.	571·103	571·341
190	BM 52 / 56 O	236·0	G.T.S. ○ B.M. On Suriapet Mandapam platform, at centre of top of eastern flight of steps.	565·103	565·339
191	BM.53 / 56 O	236·6	G.T.S.○B.M. On top of mile-stone No. 81 from Hyderabad.	561·711	561·945
192	BM.54 / 56 O	237·6	G.T.S.○B.M. On top of mile-stone No. 82 from Hyderabad.	592·017	592·264
193	BM.55 / 56 O	238·6	G.T.S.○B.M. On top of mile-stone No. 83 from Hyderabad.	612·985	613·241
194	BM 56 / 56 O	239·6	G.T.S.○B.M. On top of mile-stone No. 84 from Hyderabad.	601·967	602·219

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
195	BM.57 / 56 O	240·6	G.T.S. ○ B.M. On top of mile-stone No. 85 from Hyderabad.	643·399	643·668
196	BM 58 / 56 O	241·6	G.T.S. ○ B.M. On top of mile-stone No. 86 from Hyderabad.	613·995	614·252
197	BM 59 / 56 O	242·6	G.T.S. ○ B.M. On top of mile-stone No. 87 from Hyderabad.	597·874	598·125
198	BM.60 / 56 O	243·6	G.T.S. ○ B.M. On top of mile-stone No. 88 from Hyderabad.	571·710	571·950
199	BM 61 / 56 O	244·6	G.T.S. ○ B.M. On top of mile-stone No. 89 from Hyderabad.	549·478	549·708
1/199	BM 62 / 56 O	252·4	On top of circular pillar of Nialamari, G.T. Survey Station, lat. 17° 1′ 33″·63, long. 79° 43′ 29″·78. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).	1143·836	1144·315
200	BM.63 / 56 O	245·5	G.T.S. ○ B.M. On top of mile-stone No. 90 from Hyderabad.	539·328	539·554
201	BM 64 / 56 O	246·8	G.T.S. ○ B.M. On top of mile-stone No. 72 from Bezwada.	517·996	518·213
202	BM 65 / 56 O	247·8	G.T.S. ○ B.M. On top of mile-stone No. 71 from Bezwada.	501·264	501·474
203	BM 66 / 56 O	248·8	G.T.S. ○ B.M. On top of mile-stone No. 70 from Bezwada.	486·108	486·312
204	BM 67 / 56 O	249·8	G.T.S ○ B.M. On top of mile-stone No. 69 from Bezwada.	486·744	486·949
205	BM 68 / 56 O	250·8	G.T.S. ○ B.M. On top of mile-stone No. 68 from Bezwada.	467·631	467·828
206	BM 69 / 56 O	251·9	G.T.S. □ B.M. at Munagal Travellers' Bungalow. Embedded in front or N. verandah, flush with floor, between two windows and 2 feet from wall.	484·204	484·408
207	BM 70 / 56 O	252·0	G.T.S. ○ B.M. On top of mile-stone No. 67 from Bezwada.	480·432	480·635
208	BM 71 / 56 O	253·0	G T.S. ○ B M. On top of mile-stone No. 66 from Bezwada.	452·660	452·851
209	BM.72 / 56 O	254·0	G.T.S. ○ B.M. On top of mile-stone No. 65 from Bezwada.	446·041	446·229
210	BM.73 / 56 O	255·0	G.T.S ○ B.M. On top of mile-stone No. 64 from Bezwada.	443·917	444·105
211	BM.74 / 56 O	256·0	G.T.S. ○ B.M. On top of mile-stone No. 63 from Bezwada.	454·173	454·365

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
212	BM.75 / 56 O	257·0	○ G.T.S. B.M.	On top of mile-stone No. 62 from Bezwada.	460·798	460·993
213	BM.76 / 56 O	258·0	○ G.T.S. B.M.	On top of mile-stone No. 61 from Bezwada.	433·324	433·507
214	BM.77 / 56 O	259·0	○ G.T.S. B.M.	On top of mile-stone No. 60 from Bezwada.	424·301	424·480
215	BM.78 / 56 O	260·0	○ G.T.S. B.M.	On top of mile-stone No. 59 from Bezwada.	394·267	394·434
216	BM.1 / 56 P	260·4	G.T.S. □ B.M.	at Kumarabanda Travellers' Bungalow. Embedded in centre of N. or front verandah, flush with floor, midway between two windows and 2 feet from wall.	395·515	395·683
1/216	BM.79 / 56 O	265·2	On upper surface of circular pillar of Anantagiri, G. T. Survey Station, lat. 17° 3′ 12″·84, long. 79° 59′ 24″·85. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).		821·368	821·715
217	BM.2 / 56 P	262·2	○ G.T.S. B.M.	On top of mile-stone No. 57 from Bezwada.	363·441	363·595
218	BM.3 / 56 P	263·2	○ G.T.S. B.M.	On top of mile-stone No. 56 from Bezwada.	345·626	345·773
219	BM.4 / 56 P	264·2	○ G.T.S. B.M.	On top of mile-stone No. 55 from Bezwada.	345·678	345·825
220	BM 64 / 65 D	265·2	○ G.T.S. B.M.	On top of mile-stone No. 54 from Bezwada.	343·795	343·941
221	BM.65 / 65 D	266·2	○ G.T.S. B.M.	On top of mile-stone No. 53 from Bezwada.	323·695	323·833
222	BM.66 / 65 D	267·2	○ G.T.S. B.M.	On top of mile-stone No. 52 from Bezwada.	301·870	301·999
223	BM.67 / 65 D	268·2	○ G.T.S. B.M.	On top of mile-stone No. 51 from Bezwada.	259·343	259·453
224	BM.68 / 65 D	269·1	○ G.T.S. B.M.	On top of mile-stone No. 50 from Bezwada.	258·141	258·251
225	BM.69 / 65 D	270·1	○ G.T.S. B.M.	On top of mile-stone No. 49 from Bezwada.	272·662	272·779
226	BM.70 / 65 D	271·1	○ G.T.S. B.M.	On top of mile-stone No. 48 from Bezwada.	239·680	239·782
227	BM.71 / 65 D	272·1	○ G.T.S. B.M.	On top of mile-stone No. 47 from Bezwada.	200·011	200·097

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga		Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
228	BM.72 / 65 D	272·6	G.T.S. □ B.M.	at Shermuhammadpet Travellers' Bungalow. Embedded in front or S. verandah of E room in front of window, flush with floor, and 2 feet from wall.	195·391	195·474
229	BM.73 / 65 D	272·6	G.T.S. ○ B.M.	On N. end of lower step, at E. entrance of Shermuhammadpet masjid, on S. side of road, about 200 feet S.E. by S. of travellers' bungalow.	194·173	194·256
230	BM 74 / 65 D	273·2	○ G.T.S. B.M.	On top of mile-stone No. 46 from Bezwada.	179·834	179·911
231	BM.75 / 65 D	274·1	○ G.T.S. B.M.	On top of mile-stone No. 45 from Bezwada.	222·183	222·278
232	BM.76 / 65 D	275·1	○ G.T.S. B.M.	On top of mile-stone No. 44 from Bezwada.	218·076	218·170
233	BM.77 / 65 D	276·1	○ G.T.S. B.M.	On top of mile-stone No. 43 from Bezwada.	258·712	258·823
234	BM 78 / 65 D	277·1	○ G.T.S. B.M.	On top of mile-stone No. 12 from Bezwada.	245·349	245·454
235	BM 79 / 65 D	279·1	○ G.T.S. B.M.	On top of mile-stone No. 40 from Bezwada.	308·490	308·623
236	BM 80 / 65 D	280·1	○ G.T.S. B.M.	On top of mile-stone No. 39 from Bezwada.	279·269	279·389
237	BM 81 / 65 D	281·0	G.T.S. □ B.M.	at Gauravaram D P W. Rest House. Embedded in front or N. verandah flush with floor, midway between two doors, and 1 foot from wall	249·363	249·470
238	BM 82 / 65 D	281·2	○ G.T.S. B.M.	On top of mile-stone No. 38 from Bezwada.	244·627	244·733
239	BM 83 / 65 D	282·2	○ G.T.S. B.M.	On top of mile-stone No. 37 from Bezwada.	231·941	232·041
240	BM 84 / 65 D	283·2	○ G.T.S. B.M.	On top of mile-stone No. 36 from Bezwada.	201·918	202·005
241	BM 85 / 65 D	284·2	○ G.T.S. B.M.	On top of mile-stone No. 35 from Bezwada.	195·108	195·192
a / 241	BM 86 / 65 D	284·8	○ G.T.S. B.M.	On lower plinth at N.E. corner of Mahadeo's temple which lies 3½ chains N. of Nawabpet village, and S. of angle formed by a turn in road, about midway between mile-stones Nos. 34 and 35 from Bezwada.	186·085	186·166
242	BM 87 / 65 D	285·2	○ G.T.S. B.M.	On top of mile-stone No. 34 from Bezwada.	198·508	198·594
243	BM.88 / 65 D	286·2	○ G.T.S. B.M.	On top of mile-stone No. 33 from Bezwada.	178·271	178·348

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks			Distance from Gulbarga	Description of Bench-marks		Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
244		BM 89 / 65 D	287·2	○ G.T.S. B.M.	On top of mile-stone No. 32 from Bezwada.	148·674	148·739
245		BM.90 / 65 D	288·2	○ G.T.S. B.M.	On top of mile-stone No. 31 from Bezwada.	157·390	157·458
246		BM.91 / 65 D	289·2	○ G.T.S. B.M.	On top of mile-stone No. 30 from Bezwada.	140·493	140·554
247		BM.92 / 65 D	289·5	G.T.S. □ B.M.	at Nandigama Government School. Embedded in N. or front verandah, flush with floor, midway between door and window of W. room and 2 feet from wall.	138·149	138·209
248		BM.93 / 65 D	290·2	○ G.T.S. B.M.	On top of mile-stone No. 29 from Bezwada.	154·194	154·261
249		BM.94 / 65 D	291·2	○ G.T.S. B.M.	On top of mile-stone No. 28 from Bezwada.	133·071	133·129
250		BM 95 / 65 D	292·2	○ G.T.S. B.M.	On top of mile-stone No. 27 from Bezwada.	138·658	138·719
251		BM.96 / 65 D	293·2	○ G.T.S. B.M.	On top of mile-stone No. 26 from Bezwada.	116·234	116·285
252		BM 97 / 65 D	294·3	○ G.T.S. B.M.	On top of mile-stone No. 25 from Bezwada.	107·425	107·472
	1/252	BM.98 / 65 D	301·2	On upper mark-stone of Chintalapad, G.T. Survey Station, lat. 16° 39′ 50″·30, long. 80° 14′ 56″·83. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).		187·672	187·755
253		BM.99 / 65 D	295·3	○ G.T.S. B.M.	On top of mile-stone No. 24 from Bezwada.	149·026	149·091
254		BM.100 / 65 D	296·3	○ G.T.S. B.M.	On top of mile-stone No. 23 from Bezwada.	172·257	172·333
255		BM.101 / 65 D	297·3	○ G.T.S. B.M.	On top of mile-stone No. 22 from Bezwada.	151·976	152·043
256		BM.102 / 65 D	298·3	○ G.T.S. B.M.	On top of mile-stone No. 21 from Bezwada.	124·916	124·971
257		BM.103 / 65 D	299·3	○ G.T.S. B.M.	On top of mile-stone No. 20 from Bezwada.	119·209	119·261
258		BM.104 / 65 D	299·5	G.T.S. □ B.M.	at Kanchancherla Travellers' Bungalow. Embedded in front or W. verandah, flush with floor, in front of window of S. room and 1 foot from wall.	124·960	125·015

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
259	BM.105 / 65 D	300·4	O G.T.S. B.M.	On top of mile-stone No. 19 from Bezwada.	105·835	105·882
260	BM.106 / 65 D	301·4	O G.T.S. B.M.	On top of mile-stone No. 18 from Bezwada.	112·396	112·445
261	BM 107 / 65 D	302·4	O G T S. B.M.	On top of mile-stone No. 17 from Bezwada.	90·431	90·471
262	BM 108 / 65 D	303·4	O G.T S. B M.	On top of mile-stone No. 16 from Bezwada.	92·821	92·862
263	BM.109 / 65 D	304·4	O G T S. B M.	On top of mile-stone No. 15 from Bezwada.	104·583	104·630
264	BM.110 / 65 D	305·4	O G.T.S. B.M.	On top of mile-stone No. 14 from Bezwada.	90·171	90·211
265	BM.111 / 65 D	306·4	O G T.S. B.M.	On top of mile-stone No. 13 from Bezwada.	86·377	86·415
266	BM 112 / 65 D	307·4	O G.T.S. B.M.	On top of mile-stone No. 12 from Bezwada.	77·729	77·764
a / 266	BM 113 / 65 D	307·5	G.T.S. B.O.M.	On a large rock *in situ* at S. foot of a black rock hill, 26 feet N. of centre of road, and 9 feet E. of mile-stone No. 12 from Bezwada.	76·969	77·003
267	BM.114 / 65 D	308·4	O G T S. B M.	On top of mile-stone No. 11 from Bezwada.	84·116	84·153
268	BM 115 / 65 D	309·4	O G.T S. B M.	On top of mile-stone No. 10 from Bezwada.	81·319	81·355
269	BM 116 / 65 D	310·3	O G.T.S. B.M.	On top of mile-stone No. 9 from Bezwada.	79·396	79·431
a / 269	BM.117 / 65 D	311·8	G.T.S. □ B.M.	at Ibrahimpatan P.W.D. Store Godown. Embedded at N.E. corner at E. face of buttress on which letters B.M. have been engraved. It is 2 feet from foot of buttress, and 2 inches below ground level.	72·028	72·060
270	BM.118 / 65 D	311·4	O G T.S. B.M.	On top of mile-stone No. 8 from Bezwada.	73·576	73·609
271	BM 119 / 65 D	312·4	O G.T.S. B.M.	On top of mile-stone No. 7 from Bezwada.	70·308	70·339
272	BM.120 / 65 D	313·4	O G.T.S. B.M.	On top of mile-stone No. 6 from Bezwada.	67·077	67·107
273	BM.121 / 65 D	314·4	O G.T.S. B.M.	On top of mile-stone No. 5 from Bezwada.	66·494	66·524

Main-Line 24. (Gulbarga to Bezwada).

Designation of Bench-marks		Distance from Gulbarga	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
274	BM 122 / 65 D	315·4	○ G.T.S. B.M. On top of mile-stone No. 4 from Bezwada.	64·741	64·770
275	BM.123 / 65 D	316·4	○ G.T.S. B.M. On top of mile-stone No. 3 from Bezwada.	63·694	63·723
276	BM.124 / 65 D	317·4	○ G.T.S. B.M. On top of mile-stone No. 2 from Bezwada.	65·122	65·151
277	BM.125 / 65 D	318·4	○ G.T.S. B.M. On top of mile-stone No. 1 from Bezwada.	66·117	66·147
278	BM.2 / 65 D	319·7	G.T.S. B.M. On top of mile-stone No. 43 from Masulipatam.	65·888	65·918
279	BM.126 / 65 D	319·9	G.T.S. □ B.M. at Bezwada Travellers' Bungalow. Embedded in front or E. verandah, flush with floor, between two doors of N. room, 2 feet away from wall, and 26 feet N. of B.M. No. 280.	65·852	65·882
280	BM.1 / 65 D	319·9	G.T.S. □ B.M. at Bezwada Travellers' Bungalow. On flag-stone in pavement of E. verandah, and between two doors of S. compartment.	65·844	65·874

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks			Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.32 / 56 K	0·0	G.T.S. □ B.M. at Old Travellers' Bungalow, Secunderabad. Embedded in front or E. verandah of house No. 150/A now occupied by Major R. L. M'Clintock R.E., upper surface of stone being flush with flooring between door and window of S. room, 1 foot from wall.	1731·900	1732·595
	1/1	BM.95 / 56 K	1·4	G.T.S. ○ B.M. On E. side of 2nd step of plinth of clock tower, St. Mary's street.	1755·650	1756·354
	1a/1	BM 96 / 56 K	1·7	G.T.S. Standard Bench Mark at Secunderabad. Situated N. of court house from N.W. corner of N. projection of which it is 98 feet distant. The following bearings were observed from bench-mark to surrounding objects:—N.W. corner of N. projection 185°, N.W. corner of W. projection 206°, S.E. corner of store house 279°.	1775·574	1776·286
	1b/1	BM 97 / 56 K	2·0	G.T.S. ○ B.M. On W. end of platform coping on metre-gauge side of Secunderabad Railway Station.	1760·137	1760·843
	2/1	BM 98 / 56 K	2·0	G.T.S. □ B.M. at Secunderabad Railway Station. Embedded at entrance to station yard near E. gate from E. postern of which it is 22 feet distant and from N.E. corner of compound wall 16 feet. The following are bearings of surrounding objects from bench-mark:—N.E. corner of station compound wall 211°, N.W. corner of Traffic Inspector's bungalow 106°, fountain in small circular garden N.E. of booking office 246°.	1757·535	1758·240
	3/1	BM.99 / 56 K	2·1	G.T.S. ○ B.M. On E. end of platform coping on metre-gauge side of Secunderabad Railway Station.	1760·097	1760·803
	4/1	BM 100 / 56 K	3·0	G.T.S. ○ B.M. On N. parapet of bridge No. 252, otherwise known as Elephant's bridge, 22 chains E. of mile-stone No. 385 from Manmad.	1738·716	1739·413
2		BM.101 / 56 K	1·3	G.T.S. ○ B.M. On rock *in situ* W. of road, 35 feet from W. parapet wall of drain opposite Bashir-ud-Dowlah's garden and 91 feet from telegraph post No. 1/1.	1772·371	1773·082
3		BM.102 / 56 K	2·5	G.T.S. ○ B.M. On mass of granite on E. margin of road at Trimulgherry village. The following are distances and bearings of surrounding objects from bench-mark:—Hydrant 53 feet, 198°; S.E. corner of tailors' shop 85 feet, 337°; centre of pakka well E. of road 226 feet, 96°.	1822·222	1822·963
4		BM.103 / 56 K	2·9	G.T.S. Standard Bench Mark at Trimulgherry. Situated in compound of Barrack Depot. office and Stores (M.W.S.). The following are distances and bearings of surrounding objects from bench-mark:—S.E. corner of office building 74 feet, 18°; N.E. corner of Block No. 4, 79 feet, 171°; N.W. corner of Block No. 14, 50 feet, 95°; N.E. corner of Block No. 9, 128 feet, 262°.	1842·643	1843·382

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
5	BM.104 / 56 K	3·5	G.T.S. ○ B.M. On rock *in situ* about 20 feet W. of centre of road and N. of Barrack No. 4 at Trimulgherry, 4 chains from magazine, bearing 134° from bench-mark. Other bearings to surrounding objects are:—Reservoir on Gun Hill 241°, temple on hill to E. 63°, door of stable No. 21 107°.	1878·868	1879·620
6	BM.105 / 56 K	5·1	G.T.S. ○ B.M. On a stone slab fixed in a masonry pillar 2 feet square at S. end of platform at Alwal Railway Station.	1885·058	1885·810
a/6	BM.106 / 56 K	5·5	G.T.S. Standard Bench Mark at Bolarum. Situated in Cavalry Brigade office, from S.W. corner of N. projection of which it is 70 feet distant, bearing 163°; and from N.W. corner of S. projection of building it is 98 feet distant, bearing 315°.	1904·706	1905·466
7	BM.107 / 56 K	6·0	G.T.S. ○ B.M. On S.W. cap of bridge No. 737 at Bolarum Bazar Railway Station.	1897·856	1898·610
a/7	BM.108 / 56 K	6·8	G.T.S. ○ B.M. On E. parapet of culvert No. 741 at N. side of Alwal Railway Station.	1872·204	1872·949
8	BM.109 / 56 K	7·1	G.T.S. ○ B.M. On a stone slab let into masonry pillar 2 feet square at S. end of platform near water tank at Bolarum Railway Station.	1937·412	1938·180
a/8	BM.110 / 56 K	7·1	G.T.S. □ B.M. at Bolarum Railway Station. Embedded in a block of masonry with upper surface of stone 2 feet below ground. Situated on prolongation outwards 125 feet of S. side of palisade fence limiting platform, 2 chains from S.W. corner of custom office and 2 chains from S.E. corner of station-master's kitchen. The following are distances and bearings of surrounding objects from bench-mark:—B.M. No. 8, 130 feet, 284°; S.W. corner of station house 3 chains, 349°; centre of pakka well S. of bench-mark 3 chains, 201°.	1935·888	1936·655
9	BM.111 / 56 K	7·4	G.T.S. ○ B.M. On stone slab let into base of N. home signal at Bolarum Railway Station.	1936·178	1936·945
10	BM.112 / 56 K	8·5	G.T.S. ○ B.M. On W. parapet of bridge No. 726 near telegraph post No. 375/13.	1972·151	1972·930
11	BM.113 / 56 K	10·3	G.T.S. ○ B.M. On W. parapet of drain No. 722 near telegraph post No. 373/16.	1953·483	1954·253
12	BM.114 / 56 K	13·8	G.T.S. ○ B.M. On rock *in situ* on E. side of railway line and ¾ of a chain from level crossing near telegraph post No. 370/9.	1941·563	1942·324
13	BM.115 / 56 K	14·4	○ On E. parapet of bridge No. 710 near telegraph post No. 369/15.	1924·006	1924·758

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks			Distance from Secunderabad		Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
	$\frac{a}{13}$	$\frac{BM.116}{56\ K}$	14·5	G.T.S. ○ B.M.	On W. parapet of drain No. 711, near mile-stone No. 370 from Manmad.	1917·797	1918·547
14		$\frac{BM.117}{56\ K}$	15·7	G.T.S. ○ B.M.	On W. parapet of bridge No. 707 near telegraph post No. $\frac{368}{11}$.	1948·099	1948·859
15		$\frac{BM.118}{56\ K}$	17·9	G.T.S. ○ B.M.	On a stone slab fixed in a masonry pillar 2 feet square at N. end of platform at Medchal Railway Station.	1950·879	1951·636
16		$\frac{BM.119}{56\ K}$	18·0	G.T.S. ○ B.M.	On W. parapet of culvert No. 699 near telegraph post No. $\frac{366}{6}$.	1962·743	1963·505
17		$\frac{BM\ 120}{56\ K}$	18·7	697	On E. parapet of culvert No. 697 near telegraph post No. $\frac{365}{11}$.	1984·348	1985·118
18		$\frac{BM\ 121}{56\ K}$	20·2	G.T.S. ○ B.M.	On W. parapet of culvert No. 693 near telegraph post No. $\frac{364}{3}$.	2021·050	2021·832
19		$\frac{BM.122}{56\ K}$	23·7	G.T.S. ○ B.M.	On W. parapet of bridge No. 682 near telegraph post No. $\frac{360}{12}$.	1923·162	1923·900
20		$\frac{BM.123}{56\ K}$	24·1	G.T.S. ○ B.M.	On N. side of coping of station well S. of station building at Manoharabad Railway Station.	1920·126	1920·863
21		$\frac{BM.124}{56\ K}$	24·2	G.T.S. □ B.M.	at Manoharabad Railway Station. Embedded with upper surface of stone 3 feet below ground. Situated on prolongation outwards 120 feet of N. end of palisade fence. The following are distances and bearings of surrounding objects from bench-mark:—Centre of pakka well N.E. of station 35 feet, 107°; N.E. corner of cattle pound 112 feet, 202°; N.W. corner of same 112 feet, 211°; N. end of palisade fence 120 feet, 277°.	1916·162	1916·898
22		$\frac{BM.125}{56\ K}$	24·4	G.T.S. ○ B.M.	On E. parapet of drain No. 681 near mile-stone No. 360 from Manmad.	1918·497	1919·234
23		$\frac{BM.126}{56\ K}$	27·0	G.T.S. ○ B.M.	On E. parapet of culvert No. 676 near telegraph post No. $\frac{357}{7}$.	1828·396	1829·094
24		$\frac{BM.127}{56\ K}$	28·3	G.T.S. ○ B.M.	On W. parapet of culvert No. 671 near telegraph post No. $\frac{356}{2}$.	1805·919	1806·607
25		$\frac{BM.128}{56\ K}$	30·3	G.T.S. ○ B.M.	On W. parapet of drain No. 665 between telegraph posts Nos. $\frac{354}{1}$ and $\frac{354}{2}$.	1747·025	1747·689

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
26	BM.129 / 56 K	31·2	G.T.S. ○ B.M. On rock *in situ* on W. side of railway line near telegraph post No. 353/4.	1736·387	1737·045
27	BM.130 / 56 K	32·2	G.T.S. ○ B.M. On W. abutment of bridge No. 661 between telegraph posts Nos. 352/4 and 352/5.	1698·999	1699·641
28	BM.131 / 56 K	33·0	G.T.S. ○ B.M. On a stone slab fixed in a pillar at S. end of platform at Masaipet Railway Station.	1706·428	1707·073
a/28	BM 132 / 56 K	33·0	G.T.S. □ B.M. at Masaipet Railway Station. Embedded 2 feet below ground in station yard S.E. of building, 142 feet S.E. of centre of pakka well near by and 86 feet N.W. of telegraph post No. 351/9. The following are distances and bearings of surrounding objects from bench-mark:—B.M. No. 28, 181 feet, 281°; S.E. corner of station building 323 feet, 344°. N.E. and S.W. corners of station building bear, respectively, 346° and 341° from mark.	1709·543	1710·189
29	BM.133 / 56 K	37·6	G.T.S. ○ B.M. On W. parapet of bridge No. 641 near telegraph post No. 346/15.	1701·376	1702·014
a/29	BM.134 / 56 K	38·0	G.T.S. ○ B.M. On W. parapet of bridge No. 654 near telegraph post No. 350/4.	1685·319	1685·951
b/29	BM.135 / 56 K	33·3	G.T.S. ○ B.M. On a stone slab fixed in a pillar at N. end of platform at Masaipet Railway Station.	1706·032	1706·672
30	BM.136 / 56 K	38·7	G.T.S. ○ B.M. On E. parapet of culvert No. 639 near telegraph post No. 345/15.	1743·413	1744·064
31	BM.137 / 56 K	40·1	G.T.S. ○ B.M. On W. parapet of culvert No. 635 between telegraph posts Nos. 344/7 and 344/8.	1757·928	1758·582
32	BM.1 / 56 J	43·7	G.T.S. ○ B.M. On a stone slab let into E. parapet of culvert No. 625, about 1 chain S. of palisade fence, Mirzapali Railway Station.	1745·121	1745·767
a/32	BM.2 / 56 J	44·9	G.T.S. ○ B.M. On a stone slab let into W. parapet of bridge No. 628 between telegraph posts Nos. 342/1 and 342/2.	1736·054	1736·696
33	BM.3 / 56 J	43·8	G.T.S. ○ B.M. On a stone slab let into E. parapet of culvert No. 624, about a chain N. of N. end of palisade fence, Mirzapali Railway Station.	1744·108	1744·753

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
$\frac{a}{33}$	BM.4 / 56 J	43·9	G.T.S. □ B.M. at Mirzapali Railway Station. Embedded 2 feet below ground, N.W. of station building in prolongation outwards of W. side of palisade fence. The following are distances and bearings of surrounding objects from bench-mark:—Telegraph post No. $\frac{340}{13}$, 49 feet, 65°; centre of pakka well N.W. of station 179 feet, 272°.	1747·622	1748·269
34	BM 5 / 56 J	44·2	G.T.S. ○ B.M. On W. parapet of bridge No. 622 between telegraph posts Nos. $\frac{340}{5}$ and $\frac{340}{6}$.	1734·976	1735·618
$\frac{1}{34}$	BM 6 / 56 J	46·0	B.○M. On N. corner of plinth of more southerly of 2 mandapams situated about 5 chains S. of Narsingipet village.	1771·984	1772·640
$\frac{2}{34}$	BM 7 / 56 J	50·1	On upper mark-stone of Bora Gattu, G.T. Survey Hill Station, lat. 18° 3′ 24″·50, long. 78° 28′ 24″·25. A principal station of Bider Longitudinal Series. (For full description *see* Synoptical Volume).	2072·763	2073·530
35	BM.8 / 56 J	45·9	G.T.S. ○ B.M. On a stone slab let into W. parapet of bridge No. 616 between telegraph posts Nos. $\frac{338}{11}$ and $\frac{338}{12}$.	1745·205	1745·847
36	BM.9 / 56 J	50·5	G.T.S. ○ B.M. On a stone slab let into E. parapet of culvert No. 600 near mile-stone No. 334, about 5 chains S. of Akanapet Railway Station.	1818·952	1819·616
$\frac{a}{36}$	BM 10 / 56 J	51·0	G.T.S. ○ B.M. On a stone slab let into W. parapet of bridge No. 603 between telegraph posts Nos. $\frac{334}{8}$ and $\frac{334}{9}$.	1794·241	1794·896
$\frac{b}{36}$	BM 11 / 56 J	53·0	G.T.S. ○ B.M. On a stone slab let into W. parapet of bridge No. 610 near telegraph post No. $\frac{336}{9}$.	1755·401	1756·042
37	BM 12 / 56 J	52·5	G.T.S. ○ B.M. On a stone slab let into W. parapet of bridge No. 592 between telegraph posts Nos. $\frac{332}{2}$ and $\frac{332}{3}$.	1859·498	1860·173
$\frac{a}{37}$	BM.13 / 56 J	50·4	G.T.S. ○ B.M. On a stone slab let into pillar at N. end of platform, 8 feet S. of S. wall of gatekeeper's lodge at Akanapet Railway Station.	1827·243	1827·906
38	BM.14 / 56 J	53·2	○ On stone prism fixed in a pillar, 33 feet S. of telegraph post No. $\frac{331}{7}$.	1849·902	1850·574
39	BM 15 / 56 J	54·5	G.T.S. ○ B.M. On a stone slab let into a pillar on N.W. side of platform at Bhiknur Railway Station.	1865·538	1866·213

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks			Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/39	BM.16/56 J	54·6	G.T.S. □ B.M. at Bhiknur Railway Station. Embedded 2 feet below ground, 12 feet S. of boulder of granite near railway block No. 10, and 15 feet from wire fencing. The following are distances and bearings of surrounding objects from bench-mark :—N.E. corner of block No. 10, 25 feet, 175°; N.W. corner of same 41 feet, 202°; centre of pakka well 221 feet, 335°.	1862·837	1863·511
	b/39	BM.17/56 J	54·6	G.T.S. ○ B.M. On a stone slab let into a pillar on S. side of platform at Bhiknur Railway Station.	1864·843	1865·518
40		BM.18/56 J	55·0	G.T.S. ○ B.M. On a stone slab let into W. parapet of bridge No. 584 near telegraph post No. 329/13.	1850·793	1851·463
41		BM.19/56 J	58·1	○ On top of stone prism fixed in a pillar on W. side of railway line near telegraph post No. 326/11 (Railway bench-mark).	1774·423	1775·059
	a/41	BM.20/56 J	59·6	G.T.S. ○ B.M. On a stone slab let into N.W. return-wall of bridge No. 580 near telegraph post No. 328/5.	1792·054	1792·696
42		BM.21/56 J	58·5	B.O.M. On N.W. cap of bridge No. 575 near telegraph post No. 326/5.	1772·769	1773·404
43		BM.22/56 J	62·4	G.T.S. ○ B.M. On a stone slab let into E. parapet of bridge No. 561 between telegraph posts Nos. 322/6 and 322/7.	1754·366	1754·992
44		BM.23/56 J	63·1	G.T.S. ○ B.M. On a stone slab let into W. parapet of drain No. 559 near telegraph post No. 321/12.	1730·161	1730·777
45		BM.24/56 J	65·3	G.T.S. ○ B.M. On a stone slab let into N.W. cap of bridge No. 555 between telegraph posts Nos. 319/8 and 319/9.	1658·940	1659·529
46		BM.25/56 J	66·6	G.T.S. ○ B.M. On a stone slab let into a pillar 2 feet square at S. end of platform at Kamaredi Railway Station.	1700·151	1700·751
	a/46	BM.26/56 J	66·6	G.T.S. □ B.M. at Kamaredi Railway Station. Embedded 2 feet below ground in station yard. The following are distances and bearings of surrounding objects from bench-mark :—centre of pakka well 154 feet, 224°; S.E. corner of goods-shed 237 feet, 311°; S.E. corner of palisade fence 257°, and 40 feet from telegraph post No. 318/4.	1693·702	1694·300
47		BM.27/56 J	66·9	G.T.S. ○ B.M. On a stone slab let into W. parapet of drain No. 549 between telegraph posts Nos. 317/16 and 317/17.	1695·240	1695·838

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks			Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/47	BM.28/56 J	67·1	G.T.S. ○ B.M. On a stone slab let into a pillar 2 feet square at N. end of platform at Kamaredi Railway Station.	1700·741	1701·341
48		BM.29/56 J	73·0	G.T.S. ○ B.M. On a stone slab let into W. end of S. abutment of bridge No. 535 between telegraph posts Nos. 312/4 and 312/5.	1716·054	1716·653
	a/48	BM.30/56 J	74·8	G.T.S. ○ B.M. On a stone slab let into W. parapet of bridge No. 540 near telegraph post No. 314/2.	1695·242	1695·834
	b/48	BM.31/56 J	76·2	G.T.S. ○ B.M. On a stone slab let into drain No. 545 between telegraph posts Nos. 315/9 and 315/10.	1674·708	1675·293
49		BM 32/56 J	74·0	G.T.S. ○ B.M. On a stone slab let into W. side of well coping at Upalwai Railway Station.	1717·675	1718·273
50		BM.33/56 J	74·3	G.T.S. ○ B.M. On a stone slab let into base of N. home signal at Upalwai Railway Station.	1713·215	1713·809
	a/50	BM.34/56 J	74·3	○ On top of stone prism below ground and E. of railway line, 9 feet N. of mile-stone No. 311. (Railway bench-mark).	1714·053	1714·648
	b/50	BM.35/56 J	74·5	G.T.S. □ B.M. at Upalwai Railway Station. Embedded 2 feet below ground. The following are distances and bearings of surrounding objects from bench-mark:—S.E. corner of cattle pound 48 feet, 321°; telegraph post No. 311/4, 25 feet, 141°; centre of pakka well 181 feet, 230°. It is also 115 feet N.W. of a kacha well and 225 feet S. of S.E. corner of block No. 2.	1709·898	1710·491
51		BM.36/56 J	79·6	G.T.S. ○ B.M. On a stone slab let into N.W. return-wall of abutment of bridge No. 512 between telegraph posts Nos. 305/11 and 305/12.	1512·225	1512·747
	a/51	BM 37/56 J	83·7	G.T.S. ○ B.M. On a stone slab let into S. end of W. abutment of drain No. 529 between telegraph posts Nos. 309/12 and 309/13.	1667·539	1668·114
52		BM 38/56 J	80·6	G.T.S. ○ B.M. On a stone slab let into W. side of coping of pakka well, 46 feet from N.E. corner of station house at Sirnapalli Railway Station.	1485·402	1485·914
53		BM.39/56 J	80·8	G.T.S. ○ B.M. On a stone let into N. end of E. parapet of drain No. 507 near telegraph post No. 304/9.	1480·460	1480·971

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks			Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
54		BM.40 / 56 J	81·1	G.T.S. ○ B.M. On a stone slab let into W. parapet of bridge No. 506 near telegraph post No. 304/3.	1478·730	1479·239
55		BM.41 / 56 J	84·0	G.T.S. ○ B.M. On a stone slab let into W. parapet of bridge No. 502 near telegraph post No. 301/5.	1422·539	1423·025
56		BM.42 / 56 J	85·5	G.T.S. ○ B.M. On a stone slab let into a pillar 2 feet square at S. end of platform at Indalwai Railway Station.	1430·123	1430·611
	a/56	BM.43 / 56 J	85·6	G.T.S. □ B.M. at Indalwai Railway Station. Embedded 2 feet below ground in prolongation outwards of S. side of palisade fencing. The following are distances and bearings of surrounding objects from bench-mark :—S.E. corner of palisade fence 226 feet, 271°; telegraph post No. 299/16, 37 feet, 242°; S.E. corner of cattle pound 165 feet, 317°. S.W. corner of custom house and N.E. corner of goods-shed bear, respectively, 7° and 314° from mark.	1426·651	1427·138
	b/56	BM.44 / 56 J	86·0	G.T.S. ○ B.M. On a stone slab let into E. wing-wall of N. abutment of bridge No. 500 near telegraph post No. 300/5.	1400·609	1401·087
57		BM.45 / 56 J	89·7	G.T.S. ○ B.M. On a stone slab let into E. parapet of bridge No. 492 near telegraph post No. 295/13.	1392·936	1393·407
	a/57	BM.46 / 56 J	91·6	G.T.S. ○ B.M. On a stone slab let into E. end of N. return-wall of abutment of bridge No. 494 near telegraph post No. 297/11.	1412·429	1412·906
	b/57	BM.47 / 56 J	85·8	G.T.S. ○ B.M. On a stone slab let into W. side of well coping at Indalwai Railway Station.	1433·620	1434·105
58		BM.48 / 56 J	90·8	G.T.S. ○ B.M. On E. parapet of culvert No. 489 between telegraph posts Nos. 294/10 and 294/11.	1355·821	1356·278
59		BM.49 / 56 J	91·2	G.T.S. ○ B.M. On a stone slab let into base of S. home signal at Dichpali Railway Station.	1342·203	1342·655
60		BM 50 / 56 J	91·5	G.T.S. □ B.M. at Dichpali Railway Station (B.M. No. 1). Embedded 2 feet below ground in lands of Sudapali village, 34 feet W. of road. A pyramidal pillar bears inscription G.T.S. B.M. on face towards bench-mark. N.E. corner of custom office, distant 3 chains, bears 216° and N.E. corner of railway station 195° from bench-mark.	1326·419	1326·866

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1/60	BM 51 / 56 J	91·6	G.T.S. □ B.M. at Dichpali Railway Station (B.M. No. 2). Embedded 2 feet below ground, N.W. of station building in prolongation outwards of W. platform return-side of palisade fencing and 3 chains N. of W. end of platform, 2 chains N.W. of N.W. corner of traffic menials' quarters and 25 links from N. side of wire fencing. Bearings from bench-mark to surrounding objects are:—N.E. corner of station building 147°, W. end of platform palisade 295°, N E. corner of traffic menials' quarters 152°, N.W. corner of same 161°.	1330·858	1331·307
2/60	BM.52 / 56 J	91·7	G.T.S. ○ B.M. On a stone slab let into base of N. home signal at Dichpali Railway Station.	1340·056	1340·508
61	BM.53 / 56 J	92·8	G.T.S. ○ B.M. On W. parapet of drain, about 7 chains N. of mile-stone No. 96.	1310·177	1310·617
62	BM 54 / 56 J	93·8	G.T.S. ○ B.M. On E. parapet of drain, about 14 chains N. of mile-stone No. 97.	1308·000	1308·439
63	BM 55 / 56 J	96·2	G.T.S. ○ B.M. On rock *in situ* on E. margin of road, 7 chains N. of furlong-stone No. 3 between mile-stones Nos. 99 and 100.	1328·895	1329·339
64	BM 56 / 56 J	97·5	G.T.S. ○ B.M. On rock *in situ* in drain on E. margin of road, about 4 chains due W. of mounted police out-post near Sikandarpur village.	1289·364	1289·794
65	BM 57 / 56 J	98·9	G.T.S. ○ B.M. On rock *in situ* on E. margin of road, 6 chains from a pakka well near a flag denoting site of a local fair. The bench-mark bears 4° from well.	1281·842	1282·269
66	BM.58 / 56 J	101·7	G.T.S. ○ B.M. On rock *in situ* about 42 links from centre of well which is 1 chain E. of musafirkhana at Addagul village, and about 6 chains S.E. of mile-stone No. 105.	1267·188	1267·609
67	BM.59 / 56 J	103·2	G.T.S. ○ B.M. On E. parapet of drain, about 5 chains N. of furlong-post No. 3 between miles 106 and 107, on Nagpur road.	1260·328	1260·744
68	BM.60 / 56 J	105·7	G.T.S. □ B.M. On rock *in situ* over letters □ BM in tar on N.W. margin of road, 10 feet from its centre and 2 chains above a culvert, 660 feet S. of mile-stone No. 109 (H. H. The Nizam's P.W.D. bench-mark).	1198·287	1198·679
69	BM.61 / 56 J	107·9	G.T.S. ○ B.M. On E. parapet of bridge, about 7 chains N. of mile-stone No. 111.	1164·747	1165·125

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks			Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/69	BM.62/56 J	109·5	G.T.S. □ B.M. at Pirkit. Embedded 2 feet below ground, 40 feet W. of Nagpur road close to mounted police out-post. A pyramidal pillar bears inscription G.T.S. B.M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark:—Indicating pillar 5 feet, 308°; N.W. corner of out-post 130 feet, 98°; S.W. corner of out-post 150 feet, 113°. E. corner of village wall near some tombs bears 346° from mark.	1193·625	1194·013
70		BM.63/56 J	109·7	G.T.S. ○ B.M. On W. parapet of bridge near furlong-stone No. 7, 10 chains S. of mile-stone No. 113.	1196·986	1197·374
71		BM.64/56 J	111·7	○ B.M. On N.E. corner of stone plinth of mausoleum known locally as Kali Gumbaz, situated S.E. of Balkonda village between latter and high road to Nagpur on S. side of hills.	1164·667	1165·043
72		BM.65/56 J	113·2	G.T.S. ○ B.M. On E. parapet of bridge near furlong-stone No. 2 and about 20 chains N. of mile-stone No. 116.	1130·280	1130·643
73		BM.66/56 J	115·2	G.T.S. ○ B.M. On W. parapet of drain between furlong-stones Nos. 1 and 2, and 15 chains N. of mile-stone No. 118 on Nagpur road.	1076·470	1076·814
74		BM.67/56 J	115·5	G.T.S. □ B.M. at Mubkala. Embedded 2 feet below ground in compound of police out-post, 38 feet W. of centre of Nagpur road. A pyramidal pillar bears inscription G.T.S. B.M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark:—Indicating pillar 4 feet, 288°; N.E. corner of mounted police out-post 67 feet, 315°; S.E. corner of same 60 feet, 283°.	1086·956	1087·304
75		BM.68/56 J	119·5	G.T.S. ○ B.M. On E. parapet of bridge near furlong-stone No. 4, N. of mile-stone No. 122.	1025·265	1025·590
76		BM.1/56 I	122·2	○ B.M. On rock *in situ* N.E. of road, 227 feet from S.W. corner of mounted police out-post at Soan village on N. bank of Godavari river, 3 chains N. of mile-stone No. 125 and 379 feet E. of a tomb in fields in front of out-post.	997·240	997·554
	a/76	BM.69/56 J	123·1	G.T.S. ○ B.M. On rock *in situ* W. of road, near furlong-stone No. 2, N. of mile-stone No. 124 and 2 chains off road on S. side of Godavari.	1003·636	1003·952
77		BM.2/56 I	127·6	B.○M. On rock *in situ* E. of road about midway between furlong-stones 3 and 4 of miles 130, 131, and 8 chains S. of out-works of a large old fort called Shamgad.	1060·079	1060·409
78		BM.3/56 I	129·0	G.T.S. ○ B.M. On S. side of flight of stairs, 2nd step from bottom, leading up to stone platform of tank in front of new Tahsil office in Ibrahim Bagh, Nirmal, and 52 feet from B.M. No. a/78.	1078·669	1079·003

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/78	BM.4/56 I	129·1	G.T.S. □ B.M. at Nirmal. Embedded 2 feet below ground in walled enclosure known as Ibrahim Bagh between hospital and Tahsil office, 4 feet from S.E corner of tank, 3 feet from base of indicating pillar, 52 feet S. of B.M. No. 78, 220 feet N.W of N.W. corner of new dispensary, and 3 feet S. of S. face of tank. A pyramidal pillar bears inscription G.T.S. / B.M. on face towards bench-mark. The following bearings were observed from bench-mark to objects noted:—Indicating pillar 277°; S.E. corner of Tahsil office 293°, N.E. corner of new dispensary 120°.	1075·552	1075·885
79	BM.5/56 I	130·3	G.T.S. ○ B.M. On rock *in situ* E. of road, 3 chains N.W. of mile-stone No. 133.	1109·149	1109·492
80	BM.6/56 I	132·3	G.T.S. ○ B.M. On rock *in situ* W. of road, and 41 feet W. of mile-stone No. 135.	1137·345	1137·694
81	BM.7/56 I	135·0	○ B.M. On rock *in situ*, 10 feet E. of road and 3 chains N.E. of furlong-stone No. 5, between mile-stones Nos. 137 and 138.	1209·735	1210·105
82	BM.8/56 I	140·6	G.T.S. □ B.M. at Vankdi. Embedded 2 feet below ground near S. wall of mounted police out-post. A pyramidal pillar 3 feet high bears inscription G.T.S. / B.M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark:—Indicating pillar 5 feet N.; S.W. corner of out-post 3 feet, 332°; S.E. corner of same 11 feet, 87°; S. bastion of defence wall or "garhi" 4 chains, 136°. Mahbub Subhani's tomb is 94 feet from bench-mark.	1431·255	1431·687
a/82	BM.9/56 I	143·5	G.T.S. ○ B.M. On rock *in situ* on saddle of hill 15 feet W. of cart-track, about 20 chains from mile-stone No. 140 and 6 chains from point where road from Nirmal descends rapidly into ravine between this hill and hill towards Vankdi.	1725·127	1725·648
83	BM.10/56 I	141·4	G.T.S. ○ B.M. On rock *in situ*, 12 feet E. of road at a point 60 chains N. of stream below police out-post, Vankdi.	1472·001	1472·444
84	BM.11/56 I	144·2	G.T.S. ○ B.M. On rock *in situ* W. of cart-track, 7 chains from junction of roads, Vankdi to Warud, and Vankdi to Adilabad.	1480·127	1480·571
85	BM.12/56 I	147·1	○ B.M. On rock *in situ*, 15 feet E. of cart-track and about 14 chains N. of mile-stone No. 147.	1425·908	1426·331
86	BM.13/56 I	149·3	G.T.S. ○ B.M. On rock *in situ*, 25 feet E. of cart-track and about 24 chains N. of mile-stone No. 149.	1393·861	1394·275
87	BM.14/56 I	151·1	G.T.S. □ B.M. at Kumari. Embedded 2 feet below ground in centre of village near sarai and patel's house. A pyramidal pillar bears inscription G.T.S. / B.M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark:—Indicating pillar 5 feet, 203°; S.W. corner of patel's house 42 feet, 105°; S.E. corner of Brahmin's house at N. face of which is a well, 30 feet, 294°; N.E. corner of Brahmin's house 44 feet, 334°.	1267·229	1267·604

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
88	BM.15 / 56 I	151·6	G.T.S. ○ B.M. On large out-cropping mass of granite, 2 chains W. of cart-track on right bank of Kadam river and 4 chains S. of mile-stone No. 151 on left bank.	1234·165	1234·530
89	BM.16 / 56 I	152·8	○ B.M. On rock *in situ*, 20 feet E. of track and about 9 chains N. of mile-stone No. 152.	1389·593	1390·003
90	BM.17 / 56 I	155·6	G.T.S. ○ B.M. On rock *in situ*, 1 chain E. of cart-track, about 10 chains S. of Adegon village and 5 chains S. of mile-stone No. 155.	1452·215	1452·642
91	BM 18 / 56 I	157·2	G.T.S. B.M. □ at Itchora. Embedded 2 feet below ground in front of police out-post and musafirkhana. A pyramidal pillar 3 feet high bears inscription G.T.S. B.M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark. Indicating pillar 5 feet, 288°; kacha well 24 feet, 296°; S.E. bastion of Fort 85 feet, 347°; N.W. corner of out-post 24 feet, 18°; S.W. corner of same 9 feet, 161°.	1455·370	1455·795
92	BM.19 / 56 I	158·4	G.T.S. ○ B.M. On rock *in situ* in juxta position to □ B.M. in tar on S. side of cart-track, about 26 chains S. of mile-stone No. 158. (H.H. the Nizam's P.W.D. bench-mark).	1494·694	1495·129
93	BM.20 / 56 I	163·4	G.T.S. ○ B.M. On rock *in situ* W. of cart-track, 48 chains S. of mile-stone No. 163 at point where track begins to cross the pass, 2 miles from Manur village.	1479·955	1480·381
a / 93	BM.21 / 56 I	165·0	G.T.S. ○ B.M. On W. side of well platform, ½ chain E. of road and 15 chains S. of mile-stone No. 161 near Manur village.	1413·391	1413·798
b / 93	BM.22 / 56 I	167·3	G.T.S. ○ B.M. On rock *in situ*, about 5 feet W. of cart-track and about 56 chains N. of mile-stone No. 158.	1478·013	1478·439
94	BM.23 / 56 I	165·5	G.T.S. ○ B.M. On rock *in situ*, about 56 feet E. of centre of cart-track and about 6 chains S.W. of B.M. No. 95. N.W. and S.W. bastions of old fort S. of village are 155 and 206 feet, respectively, from mark.	1404·493	1404·893
a / 94	BM.24 / 56 I	166·5	G.T.S. ○ B.M. On rock *in situ*, 5 feet E. of cart-track, 40 chains N. of mile-stone No. 163.	1480·234	1480·656
95	BM.25 / 56 I	165·6	G.T.S. B.M. □ at Gudi Hatnura. Embedded 2 feet below ground just outside village. A pyramidal pillar 3 feet high bears inscription G.T.S. B.M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark:—Inscribed B.M. on rock near temple 160 feet, 311°; inscribed B.M. on rock near old fort 379 feet, 238°; S.E. corner of temple 283 feet, 281°; N.W. bastion of old fort 217°.	1399·944	1400·343

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
96	BM.26 / 56 I	167·0	G.T.S. ○ B.M.	On rock *in situ*, about 10 feet E. of cart-track and about 10 chains W. of mile-stone No. 166.	1408·921	1409·321
a/96	BM 27 / 56 I	168·5	○ G.T.S. B.M.	Over □ B.M. in tar on rock *in situ* near a temple, about 3 chains W. of B.M. No. 95. (H.H. the Nizam's P.W.D. bench-mark).	1396·349	1396·745
97	BM 28 / 56 I	167·9	G.T.S. ○ B.M.	Over □ B.M. in tar on rock *in situ* on E. margin of cart-track about midway between mile-stones Nos. 166 and 167. (H.H. the Nizam's P.W.D. bench-mark).	1290·803	1291·168
98	BM 29 / 56 I	169·0	G.T.S. ○ B.M.	On rock *in situ* W. of track, about 50 chains N. of mile-stone No. 167.	1154·326	1154·652
99	BM 30 / 56 I	174·2	G.T.S. ○ B.M.	On rock *in situ*, about ½ mile N.E. of Mawala village.	895·474	895·723
a/99	BM 31 / 56 I	174·8	G T S. ○ B.M.	On a large out-cropping mass of granite on E. margin of road, about ½ mile S. of B.M. No. 99 and 60 feet from centre of cart-track.	907·274	907·526
b/99	BM 32 / 56 I	175·4	G.T.S. B.M. ○	Over □ B.M. in tar on rock *in situ* E. of cart-track, about 8 feet from point where it crosses a stream, 1 mile S. of Mawala village. (H.H. the Nizam's P.W.D. bench-mark).	916·092	916·347
100	BM.33 / 56 I	175·7	G.T.S. ○ B.M.	On rock *in situ* W. of road, about 3 chains from where it cuts N. bank of a stream nearly 2 miles S. of hospital at Adilabad and 15 chains N. of mile-stone No. 173.	852·471	852·707
101	BM.34 / 56 I	177·1	G.T.S. □ B.M.	at Adilabad. Embedded 2 feet below ground near hospital. A pyramidal pillar 3 feet high bears inscription G T.S. B.M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark:—Indicating pillar 5 feet, 306°; centre of hospital well 60 feet, 148°; S. corner of hospital 20 feet, 32°; W. corner of same 40 feet, 332°; E. corner of medical officer's quarters 104 feet, 225°.	832·166	832·396
102	BM.35 / 56 I	178·6	G.T.S. ○ B.M.	On N. parapet of drain about ¾ mile N.E. of Adilabad.	795·809	796·029
103	BM.36 / 56 I	180·1	G.T.S. ○ B.M.	On rock *in situ* on N. bank of stream and W. side of cart-track, 37 chains N.E. of mile-stone No. 178.	771·804	772·016
104	BM.37 / 56 I	183·5	G.T.S. ○ B.M.	On S. side of well coping 3 chains N. of new well at Muktapur.	796·490	796·707
105	BM.38 / 56 I	184·7	G.T.S. ○ B.M.	On a large out-cropping slab of slate on W. margin of road, about 2 miles S.W. of Jainath.	806·407	806·627

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Secunderabad	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
106	BM.39 / 56 I	189·8	B.O.M. On top of mile-stone No. 188 E. of road at Kapdi village.	691·776	691·964
a / 106	BM.40 / 56 I	193·2	G.T.S. ○ B.M. On W. side of plinth of old Jain temple at N.E. end of Jainath.	751·780	751·985
107	BM.41 / 56 I	194·8	G.T.S. ○ B.M. On platform coping at N. corner of Mahadeo's temple near patel's *chavdi* on N. side of Dhanura village.	692·279	692·466
a / 107	BM.42 / 56 I	194·9	G.T.S. □ B.M. at Dhanura. Embedded between police out-post and musafirkhana just above river bank. A pyramidal pillar 3 feet high bears inscription G.T.S. / B.M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark:—Indicating pillar 5 feet N; N.E. corner of police out-post 64 feet, 268°; N.W. corner of musafirkhana 31 feet, 108°; S.W. corner of same 41 feet, 135°; S.E. corner of out-office 42 feet, 287°.	691·274	691·461
b / 107	BM.43 / 56 I	197·1	G.T.S. B.M. □ at Sangdi. Embedded 2 feet below ground on main road at N. end of village close to temple on high bank of Penganga river. A pyramidal pillar 3 feet high bears inscription G.T.S. / B.M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark:—Indicating pillar 4 feet, 343°; N. corner of temple 32 feet, 254°; N.E. corner of police chauki across road 132 feet, 194°.	694·484	694·671
108	BM.44 / 56 I	195·9	○ B.M. On top of stone prism embedded N. of cart-track, about 1 mile E. of Dhanura. (P.W.D. bench-mark).	684·979	685·163
109	BM.45 / 56 I	197·2	○ B.M. On top of stone prism embedded on right bank of stream, 2 miles E. of Dhanura. (P.W.D. bench-mark).	684·617	684·801
110	BM.46 / 56 I	199·2	G.T.S. ○ B.M. On rock *in situ* E. of cart-track in dry bed of stream about 3 miles S.W. of Mukutban.	693·218	693·404
a / 110	BM.47 / 56 I	200·9	○ B.M. On top of stone prism embedded about 5 chains from a stream, 3 miles E. of Dhanura. (P.W.D. bench-mark).	686·685	686·870
111	BM.48 / 56 I	200·3	○ B.M. On top of stone prism embedded about 2 miles S.W. of Mukutban on new road to Dhanura. (P.W.D. bench-mark).	744·213	744·413
112	BM.49 / 56 I	202·2	○ B.M. On top of stone prism embedded at S. end of Mukutban village, 2 chains off road leading into village. It is almost equidistant from village and temple at N. end of tank band. (P.W.D. bench-mark).	721·182	721·375
113	BM.50 / 56 I	203·6	G.T.S. ○ B.M. On rock *in situ* E. of cart-track, 1 mile N.E. of Mukutban.	706·611	706·800
114	BM.51 / 56 I	206·7	G.T.S. ○ B.M. On rock *in situ* on Kayar-Mukutban cart-track, about 2 miles N.E. of Ganeshpur.	686·126	686·308

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/114	BM 52/56 I	207·9	G.T.S. ○ B.M. On rock *in situ* 10 feet E. of cart-track between Kayar and Mukutban and about half a mile S.E. of Ganeshpur.	735·699	735·894
115	BM 53/56 I	211·0	G.T.S. □ B.M. at Kayar. Embedded 2 feet below ground outside police station compound. A pyramidal pillar 3 feet high bears inscription G T S. B M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark.—Indicating pillar 5 feet, 280°; S E. corner of sarai 22 feet, 41°; S.W. corner of same 53 feet, 301°; N.E. corner of police station 48 feet, 197°; S.W. corner of Mahrathi School 104 feet, 85°.	758·944	759·144
a/115	BM.54/56 I	211·0	G.T.S. ○ B.M. On W. side of well coping E. of cart-track about 3 chains S. of musafirkhana, Kayar.	762·046	762·246
b/115	BM 55/56 I	212·5	G.T.S. ○ B.M. On rock *in situ* W of cart-track at its junction with foot-path to Pusad, 1 mile N of that village and 1¾ miles S. of B.M. No. 115	713·983	714·171
c/115	BM 56/56 I	213·9	○ B.M. On top of stone prism embedded in masonry pillar 5 chains N E of cart-track and 2 chains E of Nerad village on right bank of stream. (P.W.D. bench-mark).	690·170	690·351
116	BM.57/56 I	212·3	G T.S. ○ B M. On rock *in situ*, 10 feet W. of cart-track and 1 mile N. of Kayar.	769·016	769·217
117	BM 58/56 I	215·8	G.T S. ○ B.M. On rock *in situ*, 10 feet E. of cart-track and 30 chains N E. of Umri village.	754·411	754·606
a/117	BM 59/56 I	218·2	G.T S. ○ B.M. On rock *in situ*, 6 feet E of cart-track and about 2 miles N. of Kayar.	799·351	799·558
118	BM 60/56 I	216·7	G.T S. ○ B.M. On rock *in situ* on W. margin of road, 1½ miles from Umri and ¾ mile S of Petur on cart-track to Kayar.	682·043	682 219
119	BM 1/55 L	221·5	G.T.S. ○ B M. On E. side of base of more southerly of 2 temples, ¼ mile S. of Wun village above the stream, where cart-track from Wun to Kayar crosses it.	671·864	672·035
120	BM.2/55 L	225·2	G.T S. ○ B.M. On E. parapet of bridge, 2 chains S. of mile-stone No. 3 from Wun.	674·542	674·711
a/120	BM 3/55 L	228·1	G.T.S. ○ B.M. On S.W. side of well in front of musafirkhana at Wun.	720·529	720·710
b/120	BM.4/55 L	228·3	G.T.S. □ B.M. at Wun. Embedded 2 feet below ground above junction of roads from Yeotmal and Warora and S. of Tahsil office. A pyramidal pillar 3 feet high bears inscription G.T S. B M. on face towards bench-mark. The following are distances and bearings of surrounding objects from bench-mark:—Indicating pillar 5 feet, 261°; S.W. corner of Tahsil office 107 feet, 46°; S.E. corner of latrine platform 47 feet, 318°. E. gable of post office and S.E. corner of Tahsil office bear respectively 145° and 64° from bench-mark.	729·696	729·879

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Secundarabad	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
121	BM.1 / 55 P	226·3	○ B.M. On top of mile-stone No. 4 from Wun.	654·957	655·121
122	BM.2 / 55 P	227·4	G.T.S. ○ B.M. On W. parapet of bridge, 12 chains N. of mile-stone No. 5 from Wun.	638·505	638·665
123	BM.3 / 55 P	227·9	G.T.S. □ B.M. at S. bank, Wardha river. Embedded 2 feet below ground between 4th and 5th furlong-posts of miles 6 to 7 from Wun. A pyramidal pillar 3 feet high bears inscription G.T.S. B.M. on face towards bench-mark, from which its base is 3 feet distant. Situated just off the Nagpur road 18 feet from its centre and 107 feet from 5th furlong-post, ¾ mile from Patala village on Wun side of Wardha river.	639·179	639·339
124	BM.4 / 55 P	229·5	G.T.S. ○ B.M. On top of retaining wall of road where it crosses a nala, 15 chains S. of mile-stone No. 8 from Warora.	612·262	612·414
a / 124	BM.5 / 55 P	230·5	□ On top of stone prism having No. 16 cut on E. face and embedded in earth, 1 chain N. of road at Patala village where it descends to Wardha river opposite patel's house. (P.W.D. bench-mark).	633·047	633·204
125	BM.6 / 55 P	231·4	G.T.S. ○ B.M. On N. side of coping of pakka well E. of road, 20 chains S. of mile-stone No. 6 from Warora.	647·496	647·656
a / 125	BM.7 / 55 P	232·1	10↘⊙ On top of mile-stone No. 7 from Warora on road to Wun. (P.W.D. bench-mark).	649·114	649·274
126	BM.8 / 55 P	233·7	9 ○ ↑ On top of mile-stone No. 4 from Warora on road to Wun. (P.W.D. bench-mark).	654·565	654·725
127	BM.9 / 55 P	234·7	G.T.S. ○ B.M. On N.E. corner of pillar on which are carved in stone representations of the human foot, about 1 chain N.E. of Gangaram Panchar's (Sonar's) shrine.	673·249	673·413
128	BM.10 / 55 P	235·4	4 ○ ↑ On E. parapet of drain, 30 chains S. of S. end of Warora town. (P.W.D. bench-mark).	667·940	668·103
129	BM.11 / 55 P	235·7	G.T.S. ○ B.M. On well platform at S. end of Warora town.	667·519	667·681
130	BM.12 / 55 P	236·5	○ B.M. On E. parapet of drain, 10 chains S. of Tahsil office, Warora.	673·122	673·286
131	BM.13 / 55 P	236·8	1 ○ ↑ On top of mile-stone No. 1 from Warora on road to Wun. (P.W.D. bench-mark).	683·000	683·166

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
132	BM.14 / 55 P	237·3	G.T.S. □ B.M. at Warora Railway Station. Embedded 2 feet below ground level, 111 feet and 164° from S.W. corner of W. verandah of station building, 150 feet and 153° from B.M. No. a/133, 61 feet and 27° from B.M. No. a/132, 25 feet and 346° from N.E., and 27 feet and 11° from N.W. corners of latrine; and 95 feet from edge of goods platform. A rail post, with iron plate bearing inscription G.T.S. B.M. is erected 2 feet E. of bench-mark.	688·190	688·357
a/132	BM.15 / 55 P	237·3	G.T.S. ○ B.M. On E. end of S. abutment of bridge between telegraph posts Nos. 515/15 and 515/16, and 93 feet S. of S. end of platform of Warora Railway Station.	687·772	687·939
133	BM.16 / 55 P	239·3	G.T.S. ○ B.M. On E. end of S. abutment of bridge between telegraph posts Nos. 513/14 and 513/15.	691·458	691·625
a/133	BM 17 / 55 P	237·4	G.T.S. ○ B.M. On platform coping opposite ladies' waiting room at Warora Railway Station.	690·559	690·725
134	BM 5 / 55 L	241·3	G.T.S. ○ B.M. On E. end of S. abutment of bridge between telegraph posts Nos. 511/15 and 511/16.	690·585	690·751
135	BM.6 / 55 L	243·4	G.T.S. ○ B.M. On E. parapet of bridge between telegraph posts Nos. 509/13 and 509/14.	681·909	682·071
136	BM 7 / 55 L	248·3	G.T.S. ○ B.M. On N. parapet of bridge between telegraph posts Nos. 504/15 and 504/16.	752·203	752·380
1/136	BM 8 / 55 L	251·4	On upper mark-stone of Karwa Topographical Hill Station, lat. 20° 21′ 35″·75, long. 78° 53′ 10″·43. A station of Berar Topographical Survey and situated on top of ridge which lies between Mahdodee and Wagnuk villages. The station lies 5 miles S. of Nagri village and 1½ miles N.W. of Karwa. The station consists of a circle and dot inscribed on a stone embedded in a platform of earth and stones about 8 feet in diameter and 4 feet high. A second stone similarly inscribed is situated vertically underneath upper mark at ground level.	783·717	783·901
a/136	BM.9 / 55 L	251·0	G.T.S. ○ B.M. On E. parapet of culvert between telegraph posts Nos. 507/8 and 507/9.	712·585	712·752
137	BM.10 / 55 L	250·3	G.T.S. ○ B.M. On E. parapet of bridge between telegraph posts Nos. 502/15 and 502/16.	762·992	763·170

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
138	BM.11 / 55 L	251·2	G.T.S. ○ B.M. On stone coping of platform opposite booking office at Nagri Railway Station.	740·338	740·511
a / 138	BM.12 / 55 L	251·2	G.T.S. □ B.M. at Nagri Railway Station. Embedded 2 feet below platform level, 77 feet and 156° from S.W. corner and 81 feet and 178° from S.E. corner of E. verandah of station building, 3 feet and 16° from S.W. corner of wooden fencing, 110 feet and 185° from bench-mark No. 138 and 50 feet from edge of platform. A rail post with iron plate bearing inscription G.T.S. / B.M. is erected 2 feet W. of bench-mark.	738·352	738·524
139	BM.13 / 55 L	252·6	G.T.S. ○ B.M. On E. return-wall of S. abutment of bridge over Pothra river, between telegraph posts Nos. 500/10 and 500/11.	690·000	690·160
140	BM.14 / 55 L	255·5	G.T.S. ○ B.M. On E. parapet of culvert between telegraph posts Nos. 497/12 and 497/13.	743·045	743·216
141	BM.15 / 55 L	258·1	G.T.S. ○ B.M. On E. parapet of bridge between telegraph posts Nos. 495/2 and 495/3.	717·652	717·815
142	BM.16 / 55 L	260·4	G.T.S. ○ B.M. On E. parapet of bridge between telegraph posts Nos. 492/14 and 492/15.	736·026	736·192
143	BM.17 / 55 L	261·4	G.T.S. □ B.M. at Hinganghat Railway Station. Embedded 2 feet below ground level, 94 feet and 119° from S.E. corner of station building, 91 feet and 143° from N.E. corner of N. verandah of same, 138 feet and 153° from B.M. No. b/144, 44 feet from edge of platform, and 59 feet from wire fencing. A rail post with iron plate bearing inscription G.T.S. / B.M. is erected 3 feet S. of bench-mark.	741·115	741·281
a / 143	BM.18 / 55 L	262·5	Hinganghat Topographical Station, lat. 20° 33′ 12″·71, long. 78° 50′ 36″·32. A station of Berar Topographical Survey and inscribed on top of reservoir in Hinganghat. The reservoir is close to monument to Colonel Lambton and about 230 feet from standard bench-mark. The mark is on the side of reservoir nearest bench-mark and where the inner or dividing wall meets the outer one.	767·079	767·251
1 / 143	BM.19 / 55 L	262·4	G.T.S. Standard Bench Mark 1907 at Hinganghat, near the grave of Colonel Lambton, first Superintendent of the Trigonometrical Survey of India, 29 feet from N.W., and 22 feet from S.W. corners of wall enclosing same, 34 feet from centre of monument, and 218 feet from S.E. corner of base of reservoir.	746·504	746·671

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
144	BM.20 / 55 L	267·5	G.T.S. ○ B.M. On N. parapet of bridge between telegraph posts Nos. 485/11 and 485/12.	803·547	803·725
a/144	BM 21 / 55 L	272·3	G.T.S. ○ B.M. On N. return-wall of E. abutment of bridge over Wanna river, between telegraph posts Nos. 490/7 and 490/8.	714·458	714·616
b/144	BM 22 / 55 L	261·4	G.T.S. ○ B.M. 1908. On stone coping of platform opposite booking office at Hinganghat Railway Station.	743·241	743·405
145	BM.23 / 55 L	269·3	G.T.S. ○ B.M. On N. parapet of bridge between telegraph posts Nos. 483/17 and 483/18.	821·377	821·558
146	BM 24 / 55 L	271·3	G.T.S. ○ B.M. On E. parapet of bridge between telegraph posts Nos. 481/17 and 481/18.	854·505	854·692
147	BM.25 / 55 L	271·6	G.T.S. □ B.M. at Sonegaon Railway Station. Embedded 2 feet below ground level, 55 feet and 306° from N.E., and 50 feet and 330° from N.W. corners of station building; 27 feet and 276° from water-tap; 76 feet and 298° from B.M. No. a/147 and 41 feet from edge of platform. A rail post, with iron plate bearing inscription G T S. / B M. is erected 4 feet W. of bench-mark.	859·379	859·567
1/147	BM.26 / 55 L	272·1	On upper mark-stone of Esamba, G. T. Survey Hill Station, lat. 20° 38′ 2″·22, long. 78° 42′ 46″·85. A secondary station of Great Arc Meridional Series—Section 18° to 24°. (For full description *see* Synoptical Volume).	932·294	932·498
a/147	BM.27 / 55 L	271·7	G T.S. ○ B.M. On stone coping of platform opposite booking office at Sonegaon Railway Station.	861·172	861·361
148	BM.28 / 55 L	272·4	G T S. ○ B.M. On S. abutment of bridge between telegraph posts Nos. 480/15 and 480/16.	842·109	842·293
149	BM 29 / 55 L	274·6	G.T.S. ○ B.M. On N. parapet of bridge between telegraph posts Nos. 478/11 and 478/12.	859·931	860·118
150	BM 30 / 55 L	276·7	G.T.S. ○ B.M. On N. parapet of culvert between telegraph posts Nos. 476/8 and 476/9.	893·297	893·490

Branch-Line 24A. (Hyderabad to Wardha).

Designation of Bench-marks		Distance from Secunderabad	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
151	BM.31 / 55 L	278·3	G.T.S. ○ B.M. On E. parapet of bridge between telegraph posts Nos. 474/16 and 474/17.	890·968	891·160
152	BM.32 / 55 L	281·4	G.T.S. ○ B.M. On N. parapet of culvert between telegraph posts Nos. 471/16 and 471/17.	913·424	913·619
153	BM.33 / 55 L	282·2	G.T.S. ○ B.M. On coping of platform opposite booking office at Wardha Railway Station.	935·182	935·381
154	BM.34 / 55 L	282·8	G.T.S. ○ B.M. at Wardha Railway Station. On S.E. corner of base of up (or W.) distant signal.	922·406	922·602
155	BM.35 / 55 L	283·7	G.T.S. ○ B.M. On N. end of W. abutment of bridge over Saongi stream, 33 chains W. of mile-stone No. 470, and between telegraph posts Nos. 469/12 and 469/13.	885·616	885·805

Main-Line 25. (Kedgaon to Diksal).

Designation of Bench-marks		Distance from Kedgaon	Description of Bench-marks	Corrected Elevation *	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.1 / 47 J	0·0	G.T.S. □ B.M. at Kedgaon Railway Station. Embedded 6 inches below ground, within railway enclosure, 73 feet S. of back return corner of palisade fence at W. end of station building and 71 feet from S.W. corner of station master's quarters The following are distances and bearings of surrounding objects from bench-mark:—S.W. corner, water-tank 205 feet; 301°; N.W. corner, station master's house 68 feet, 91°; N.E. corner, porter's house 5 feet, 157°.	1775·857	1776·468
2	BM.2 / 47 J	0·7	G.T.S. ○ B.M. On N. parapet of bridge, about 13 chains E. of mile-post No. 153.	1764·260	1764·867
3	BM.3 / 47 J	2·0	G.T.S. ○ B.M. On E. abutment of bridge, 34 chains E. of mile-post No. 154.	1739·513	1740·112
a/3	BM.4 / 47 J	6·4	G.T.S. □ B.M. at Patas Railway Station. Embedded 6 inches below platform level at E end, 40 feet from N.E. corner of station building, 69 feet from N.E. end of platform and 5 feet S. of B.M. No. b/3.	1732·509	1733·105
b/3	BM.5 / 47 J	6·4	G.T.S. ○ B.M. On platform coping of Patas Railway Station.	1733·118	1733·714
c/3	BM.6 / 47 J	7·4	G.T.S. ○ B.M. On W. end of N. parapet of bridge between telegraph posts Nos. 159/18 and 159/19.	1716·752	1717·343
4	BM 7 / 47 J	7·9	G.T.S. ○ B.M. On road coping at level crossing No. 86 near telegraph post No. 160/8.	1711·119	1711·709
5	BM 8 / 47 J	9·2	□ G T S. ○ B.M. On coping at N. parapet of bridge near telegraph post No. 161/15.	1696·895	1697·480
6	BM.9 / 47 J	10·7	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 163/5.	1711·484	1712·074
7	BM.10 / 47 J	12·8	G.T.S. ○ B.M. On lowest step of old tank-house near telegraph post No. 165/8.	1684·060	1684·643
8	BM.11 / 47 J	13·0	G.T.S. □ B.M. at Permanent Way Inspector's house, Dhond. Embedded 6 inches below ground within railway enclosure (old station). The following are distances and bearings of surrounding objects from bench-mark:—S.W. corner of P.W. I's house 84 feet, 96°; N.W. corner of same 91 feet, water-pipe in compound 85 feet, 59°; S.E. corner of out-office 6 feet, 21°; S.W. corner of out-office 13 feet; apex of roof of old tank-house 279°.	1685·560	1686·143

* Deduced from the most recent levelling revision.

Main-Line 25. (Kedgaon to Diksal).

Designation of Bench-marks			Distance from Kedgaon	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
9		BM.12/47 J	13·6	G.T.S. ○ B.M. On S. platform coping, 5 chains E. of centre of station building, Dhond (new railway station).	1692·231	1692·816
10		BM.13/47 J	14·5	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 167/1.	1677·596	1678·177
11		BM.14/47 J	17·5	G.T.S. ○ B.M. On S.W. abutment of bridge near telegraph post No. 170/1.	1670·970	1671·550
12		BM.15/47 J	19·0	G.T.S. ○ B.M. On N.E. parapet of bridge near telegraph post No. 171/12.	1713·503	1714·099
	a/12	BM.16/47 J	19·9	G.T.S. □ B.M. at Boribyal Railway Station. Embedded outside flagged and raised portion forming platform round station house, 9 feet from S.W. corner of station and 27 feet from S.E. corner which bears 41° from bench-mark.	1720·891	1721·490
	1a/12	BM.17/47 J	22·1	On top of rectangular protecting pillar of Bori G. T. Survey Station, lat. 18° 25′ 7″·76, long. 74° 37′ 48″·09. A principal station of Bombay Longitudinal Series. (For Full description *see* Synoptical Volume).	2004·928	2005·626
13		BM.18/47 J	20·4	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 172/19.	1731·373	1731·977
14		BM.19/47 J	21·7	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 174/5.	1711·174	1711·773
	a/14	BM 20/47 J	22·8	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 175/7.	1710·453	1711·052
15		BM.21/47 J	24·4	G.T.S. ○ B.M. On rock *in situ* S. side of railway line near mile-post No. 177, 61 feet S. of it and 56 feet E. of Government telegraph post.	1686·264	1686·854
16		BM.22/47 J	26·4	G.T.S. ○ B.M. On N.E. parapet of bridge near telegraph post No. 178/19.	1711·314	1711·915
17		BM.23/47 J	26·7	G.T.S. ○ B.M. On N.E. parapet of bridge near telegraph post No. 179/7.	1708·120	1708·721
18		BM.24/47 J	28·2	G.T.S. ○ B.M. On S.E. cap of bridge near telegraph post No. 180/16.	1687·614	1688·208

Main-Line 25. (Kedgaon to Diksal).

Designation of Bench-marks		Distance from Kedgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
	a/18 BM.25/47 J	miles 28·7	G.T.S. ○ B.M. On N. cap of bridge between telegraph posts Nos. 181/5 and 181/6.	feet 1677·498	feet 1678·088
19	BM 26/47 J	29·8	G T S. ○ B M. On N. parapet of bridge between telegraph posts Nos. 182/8 and 182/9.	1665·564	1666·152
20	BM 27/47 J	30·6	G.T.S. □ B.M. at Diksal Railway Station. Embedded 6 inches below ground within railway enclosure. The following are distances and bearings of surrounding objects from bench-mark:—N.E corner, gangmen's house No. 2, 8 feet, 145°; N.W. corner of same 18 feet, 263°; S.W. corner of water-tank 112 feet, 32°; S.W. upright, N. end of over-bridge 205 feet, 83°.	1657·653	1658·240

Branch-Line 25A. (Dhond to Manmad).

The levelling on line 25A was insufficiently accurate and the resulting values of height have been all rejected. The line will have to be relevelled.

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks			Distance from Diksal	Description of Bench-marks	Corrected Elevation *	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.27 / 47 J	0·0	G.T.S. □ B.M. at Diksal Railway Station. Embedded 6 inches below ground, within railway enclosure. The following are distances and bearings of surrounding objects from bench-mark :—N.E. corner of gangmen's house No. 2, 8 feet and 145°; N.W. corner of same 18 feet and 263°; S.W. corner of water-tank 112 feet and 32°; S.W. upright, N. end of over-bridge 205 feet and 83°.	1657·653	1658·240
	a/1	BM.28 / 47 J	2·3	G.T.S. ○ B.M. On N. parapet of the stone bridge across Bhima river near telegraph post No. 185/10.	1634·596	1635·175
2		BM.29 / 47 J	3·0	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 186/5.	1633·570	1634·150
3		BM 30 / 47 J	4·2	G.T.S. ○ B.M. On E. abutment of bridge near telegraph post No. 187/9.	1634·073	1634·653
	a/3	BM.31 / 47 J	5·0	G.T.S. □ B.M. at Katraj Railway Station. Embedded 9 inches below ground within railway enclosure, 26 and 12 feet respectively from N.W. and S.W. corners of station house.	1639·625	1640·207
4		BM 32 / 47 J	6·3	G.T.S. ○ B.M. On N parapet of bridge near telegraph post No. 189/11.	1665·644	1666·237
5		BM.33 / 47 J	7·3	B.M. On N. parapet of bridge near telegraph post No. 190/11.	1658·529	1659·120
6		BM.34 / 47 J	7·6	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 190/19.	1649·007	1649·594
7		BM.35 / 47 J	11·4	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 194/13.	1629·643	1630·223
8		BM 36 / 47 J	11·5	G.T.S. □ B.M. at Pomalvadi Railway Station. Embedded 6 inches below ground, within railway enclosure. The following are distances and bearings of surrounding objects from bench-mark :—N.W. corner of water-tank 11 feet and 93°; S.W. corner of same 16 feet and 141°; telegraph post to S.E. 82 feet and 155°; telegraph post No. 194/16, 50 feet and 359°.	1626·076	1626·655
9		BM 37 / 47 J	12·4	G.T.S. ○ B.M. On N. parapet of bridge across a tributary of Bhima river at Pomalvadi village near telegraph post No. 195/14.	1616·508	1617·085

* Deduced from the most recent levelling revision.

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks			Distance from Diksal	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/9	BM.38/47 J	13·6	G.T.S. ○ B.M. On S.E. cap of bridge near telegraph post No. 196/17.	1623·784	1624·364
10		BM.39/47 J	14·3	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 197/12.	1620·209	1620·789
	a/10	BM.1/47 N	15·1	G.T.S. ○ B.M. On N. parapet of bridge between telegraph posts Nos. 198/8 and 198/9.	1606·389	1606·964
	b/10	BM.2/47 N	17·7	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 201/1.	1602·468	1603·042
11		BM.3/47 N	18·9	G.T.S. □ B.M. at Washimbe Railway Station. Embedded 3 inches below ground, within railway enclosure. The following are distances and bearings of surrounding objects from bench-mark :—E. upright of station name-board, 74 feet and 209°; centre of pakka well, 132 feet and 245°; N.W. corner of station house, 18 feet and 348°; S.W. corner of same 10 feet.	1604·687	1605·258
12		BM.4/47 N	19·0	○ B.M. On N. parapet of bridge near telegraph post No. 202/6.	1604·426	1604·997
13		BM.5/47 N	19·6	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 202/18.	1600·315	1600·885
14		BM.6/47 N	20·9	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 204/3.	1622·955	1623·533
15		BM.7/47 N	21·7	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 205/1.	1654·303	1654·892
16		BM.8/47 N	23·9	G.T.S. ○ B.M. On E. abutment of bridge near telegraph post No. 207/5.	1728·973	1729·587
	a/16	BM.9/47 N	24·4	G.T.S. ○ B.M. On E. abutment of bridge near telegraph post No. 207/14.	1745·621	1746·241
17		BM.10/47 N	24·8	G.T.S. ○ B.M. On E. abutment of bridge between telegraph posts Nos. 208/2 and 208/3.	1758·821	1759·445

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks		Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
18	BM 11/47 N	25·1	G.T.S. □ B.M. at Pophlaj village. Embedded 6 inches below ground within railway enclosure and close to gatekeeper's lodge, 14 feet from S.W. corner of same, 112 feet and 23° from S W. corner of Chavdi village, 2 feet and 89° from N.W. corner of gatekeeper's lodge.	1768·651	1769·279
a/18	BM 12/47 N	26·7	GT S. ○ B.M. On N.E. cap of abutment of bridge near telegraph post No. 210/1.	1795·926	1796·564
19	BM.13/47 N	28·9	B.OM. On N. parapet of bridge near telegraph post No. 212/4.	1718·437	1719·050
a/19	BM 14/47 N	29·3	G.T S. □ B.M. at Jeur Railway Station. Embedded 6 inches below ground within railway enclosure. The E. and S. corners of water-tank are respectively 48 feet, 352° and 46 feet and 327° from bench-mark.	1707·890	1708·500
20	BM 15/47 N	29·6	G.T.S. ○ B M. On S. abutment of drain near telegraph post No. 212/18.	1702·824	1703·432
21	BM 16/47 N	29·9	G.T S. ○ B.M. On N. parapet of bridge near telegraph post No. 213/6.	1698·592	1699·199
22	BM.17/47 N	31·3	G T S. ○ B M. On S. parapet of bridge between telegraph posts Nos. 214/13 and 214/14.	1689·779	1690·384
23	BM.18/47 N	32·0	G T S. ○ B M. On N.W. abutment of drain near telegraph post No. 215/6.	1699·737	1700·346
24	BM.19/47 N	33·7	B M. ○ On N. parapet of bridge between telegraph posts Nos. 217/1 and 217/2.	1697·128	1697·739
25	BM.20/47 N	35·9	B.M. ○ On N. parapet of bridge between telegraph posts Nos. 219/5 and 219/6.	1754·551	1755·183
a/25	BM 21/47 N	39·1	G.T.S. □ B.M. at Kem Railway Station. Embedded 9 inches below ground, within railway enclosure. The following are distances and bearings of surrounding objects from bench-mark:—Centre of pakka well, 17 feet, 246°; N.W corner of station house 205 feet, 100°; telegraph post No. 222/9, 68 feet, 320°; apex of roof, sub-platelayer's house 83°.	1781·626	1782·267

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks			Distance from Diksal	Description of Bench-marks		Corrected Elevation	
	Geodetic	Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
	b/25	BM.22/47 N	39·1	G.T.S. ○ B.M.	On W. end of platform coping at Kem Railway Station.	1783·620	1784·262
26		BM.23/47 N	39·2	G.T.S. ○ B.M.	On E. end of platform coping at Kem Railway Station.	1783·146	1783·790
	1/26	BM.24/47 N	41·3		On top of circular pillar of Kem, G.T. Survey Station, lat. 18° 10′ 48″·90, long. 75° 18′ 23″·92. A principal station of Bombay Longitudinal Series. (For full description *see* Synoptical Volume).	1951·084	1951·788
27		BM.25/47 N	39·4	222-61-62 BF.28.8R.	On stone coping of N.E. parapet of bridge between telegraph posts Nos. 222/15 and 222/16.	1787·170	1787·817
28		BM.26/47 N	40·3	223-48-68 ⊕ BF.5.0M.	On stone slab let into N.E. parapet of drain near telegraph post No. 223/12.	1815·547	1816·204
29		BM 27/47 N	41·9	225-19-09 ⊕ BF.20.8M.	On stone slab let into N.E. parapet of bridge near telegraph post No. 225/5.	1823·863	1824·525
30		BM.28/47 N	43·9	227-18-61 ⊕ BF.25.9M.	On stone slab let into N.E. parapet of bridge near telegraph post No. 227/5.	1786·229	1786·879
31		BM.29/47 N	44·3	227-56-32 ⊕ BF.15.3M.	On stone slab let into N.E. parapet of bridge between telegraph posts Nos. 227/14 and 227/15.	1774·985	1775·631
32		BM 30/47 N	45·6	228-76-08 ⊕ BF.16.5M.	On stone slab let into N. parapet of bridge near telegraph post No. 228/19.	1746·767	1747·403
33		BM 31/47 N	47·4	230-61-19 ⊕ BF.7.3M.	On stone slab let into N.W. abutment of bridge between telegraph posts Nos. 230/15 and 230/16.	1713·224	1713·849
34		BM.32/47 N	47·6	G.T.S. ○ B.M.	On N. parapet of bridge near mile-post No. 231.	1712·829	1713·454
	a/34	BM.33/47 N	50·1	G.T.S. ○ B.M.	On N.E. parapet of bridge near telegraph post No. 233/11.	1684·147	1684·762
35		BM 34/47 N	50·4	G.T.S. ○ B.M.	On N.W. end of platform coping at Barsi Road Railway Station.	1682·426	1683·042
36		BM.35/47 N	50·5	G.T.S. ○ B.M.	On S.E. end of platform coping at Barsi Road Railway Station.	1680·954	1681·569

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks		Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/36	BM.36/47 N	50·5	G.T.S. □ B.M. at Barsi Road Railway Station. Embedded 6 inches below ground, within railway enclosure, 11 feet from S W. corner of "catch-water". The following are distances and bearings of surrounding objects from bench-mark:—N.E. corner of water-tank 42 feet, 89°; S W. corner of same 38 feet, 117°; N.E. corner of station house 214 feet, 296°; centre of large well 17 feet, 97°; and centre of turn-table 81 feet and 192°.	1677·161	1677·775
37	BM 37/47 N	51·0	234-31-43 ⊕ BF.13 3R. On N.E. parapet of bridge near telegraph post No. 234/8.	1674·782	1675·395
38	BM 38/47 N	51·9	G T S. ○ B.M. On N. parapet of bridge near telegraph post No. 235/5.	1661·176	1661·784
a/38	BM 39/47 N	52·4	G.T S. ○ B.M. On N.E. parapet of bridge between telegraph posts Nos. 235/15 and 235/16.	1651·545	1652·149
39	BM.40/47 N	53·5	⊕ G T S. B M. ○ On S.W. abutment of bridge near telegraph post No. 236/18.	1628·139	1628·736
40	BM.41/47 N	54·4	G.T.S. ○ B.M. On N. parapet of drain near telegraph post No. 237/17.	1619·702	1620·297
a/40	BM 42/47 N	55·5	G.T S. ○ B.M. On N. parapet of bridge near telegraph post No. 238/15.	1611·171	1611·762
b/40	BM 43/47 N	56·7	G.T.S. ○ B M. On E. parapet of bridge across Bin nala, near telegraph post No. 239/19.	1596·870	1597·456
41	BM 44/47 N	57·6	G.T.S. ○ B.M. On N. parapet of bridge near mile-post No. 241.	1589·850	1590·435
a/41	BM 45/47 N	59·7	G.T S. ○ B.M. On N. abutment of culvert near mile-post No. 243.	1566·942	1567·519
b/41	BM 46/47 N	60·4	G.T S. ○ B.M. On S. end of stone coping of platform at Madha Railway Station.	1568·294	1568·871
c/41	BM.47/47 N	60·4	G.T.S. ○ B.M. On N. end of stone coping of platform at Madha Railway Station.	1568·863	1569·440

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks		Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
d/41	BM.48/47 N	60·4	G.T.S. □ B.M. at Madha Railway Station. Embedded at N. end of platform close to S.E. corner of tank-house, 18 inches below platform level, 5 feet and 165° from S.E., and 15 feet and 65° from S.W. corners of tank-house, 169 feet and 319° from N.E. corner of station building, and 19 feet and 282° from B.M. No. c/41.	1567·069	1567·646
e/41	BM.49/47 N	61·4	G.T.S. ○ B.M. On S. abutment of culvert near telegraph post No. 244/14.	1569·360	1569·937
f/41	BM.1/47 O	63·4	G.T.S. ↑ B.M. On W. parapet of bridge across Uplai nala near telegraph post No. 246/13. (Irrigation bench-mark).	1530·193	1530·756
g/41	BM.2/47 O	65·0	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 248/4.	1531·122	1531·685
h/41	BM.3/47 O	65·8	⊤ On W. parapet of bridge near mile-post No. 249. (Irrigation bench-mark).	1522·526	1523·086
i/41	BM.4/47 O	66·4	G.T.S. ○ B.M. On S. abutment of culvert near telegraph post No. 249/11.	1531·720	1532·284
j/41	BM.5/47 O	66·8	↑ On W. parapet of bridge near telegraph post No. 249/17. (Irrigation bench-mark).	1531·564	1532·128
k/41	BM.6/47 O	67·2	↑ On S. abutment of culvert near telegraph post No. 250/4. (Irrigation bench-mark).	1529·736	1530·299
l/41	BM.7/47 O	67·6	↑ On E. parapet of bridge near telegraph post No. 250/16. (Irrigation bench-mark).	1512·851	1513·408
42	BM.8/47 O	68·9	G.T.S. □ B.M. at Angar Railway Station. Embedded 9 inches below ground level, 5 feet and 143° from S.W., and 8 feet and 213° from S.E. corners of small room on W. side of station building, 27 feet and 241° from wooden post at S.E. corner of station verandah, 164 feet and 354° from N.W. corner of menial-staff quarters, and 49 feet from wire fencing.	1527·580	1528·153
l/42	BM.9/47 O	73·2	G.T.S. ○ B.M. On top of Haurnadba's grave, close to Mahadeo's temple, S. of Anjangaon village.	1595·542	1596·141

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks		Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
2/42	BM.10/47 O	76·0	On upper mark-stone of Wapla, G.T. Survey Hill Station, lat. 17° 55′ 58″·56, long. 75° 30′ 29″·27. A principal station of Bombay Longitudinal Series. (For full description *see* Synoptical Volume).	1742·805	1743·459
43	BM.11/47 O	69·9	↑ On W. parapet of bridge across Angar nala, near mile-post No. 253. (Irrigation bench-mark).	1512·700	1513·269
a/43	BM.12/47 O	73·5	G.T.S. ○ B.M. On E. end of culvert near telegraph post No. 256/11.	1511·025	1511·593
b/43	BM.13/47 O	75·7	G.T.S. ○ B.M. On W. parapet of N. abutment of culvert near telegraph post No. 258/15.	1500·981	1501·545
c/43	BM 14/47 O	76·3	↑ On E. parapet of bridge near telegraph post No. 259/5. (Irrigation bench-mark).	1492·948	1493·509
d/43	BM 15/47 O	77·0	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 259/19.	1506·509	1507·076
44	BM 16/47 O	78·1	G.T.S. ○ B.M. On N. abutment of culvert near telegraph post No. 261/2.	1482·078	1482·644
a/44	BM.17/47 O	79·1	G.T.S. □ B.M. at Mohol Railway Station. Embedded opposite W. wall of tank-house, 12 inches below ground level, 6 feet and 218° from N.W., and 19 feet and 312° from S.W corners of tank-house, 143 feet and 8° from S.E. corner of policemen's quarters, 99 feet and 84° from N.E. corner of menial staff quarters, and 15 feet from outside of parapet of well.	1486·993	1487·561
b/44	BM.18/47 O	79·2	↑ On stone coping of down platform of Mohol Railway Station. (Irrigation bench-mark).	1490·655	1491·224
c/44	BM.19/47 O	79·2	G.T.S. ○ B.M. On S. end of stone coping of up platform at Mohol Railway Station.	1492·249	1492·819
d/44	BM.20/47 O	79·2	G.T.S. ○ B.M. On N. end of stone coping of up platform at Mohol Railway Station.	1490·627	1491·196
e/44	BM.21/47 O	80·8	↑ On W. parapet of bridge near telegraph post No. 263/15. (Irrigation bench-mark).	1491·446	1492·016
f/44	BM.22/47 O	81·0	G.T.S. ○ B.M. On S. abutment of culvert near telegraph post No. 263/19.	1485·869	1486·437

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks			Distance from Diksal	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	g/44	BM.23/47 O	82·2	↑ On W. parapet of bridge near telegraph post No. 265/3. (Irrigation bench-mark).	1471·351	1471·913
	h/44	BM.24/47 O	82·5	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 265/9.	1471·898	1472·460
	i/44	BM.25/47 O	82·8	G.T.S. ○ B.M. On E. stone cap of open culvert near telegraph post No. 265/14.	1474·820	1475·383
	j/44	BM.26/47 O	83·5	↑ On W. parapet of bridge near telegraph post No. 266/8. (Irrigation bench-mark.)	1484·312	1484·879
	k/44	BM.27/47 O	84·8	G.T.S. ○ B.M. On S. abutment of culvert near telegraph post No. 267/13.	1478·343	1478·908
	l/44	BM.28/47 O	85·2	G.T.S. ○ B.M. On W. abutment of bridge over Sina river near telegraph post No. 268/3.	1472·643	1473·206
	m/44	BM.29/47 O	86·5	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 269/9.	1478·355	1478·920
	n/44	BM.30/47 O	87·2	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 270/2.	1471·502	1472·064
45		BM.31/47 O	88·4	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 271/5.	1459·118	1459·681
46		BM.32/47 O	89·6	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 272/9.	1466·017	1466·583
	a/46	BM.33/47 O	89·9	G.T.S. □ B.M. at Pakni Railway Station. Embedded at S. end of station building, 15 inches below ground level, 7 feet and 111° from S.W., and 7 feet and 191° from S.E. corners of projecting block to S. of station building, 36 feet and 327° from N.E., and 49 feet and 14° from N.W. corners of station master's quarters, and 43 feet from wire fencing.	1466·222	1466·788
47		BM.34/47 O	90·3	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 273/4.	1459·056	1459·621

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks		Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/47	BM 35/47 O	91·5	G.T.S. ○ B.M. On W. parapet of bridge near telegraph post No. 274/6.	1483·649	1484·223
48	BM 36/47 O	92·8	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 275/12.	1514·514	1515·102
1/48	BM 37/47 O	94·0	On upper mark-stone of Hiráj, G.T. Survey Station, lat. 17° 41′ 20″·94, long. 75° 49′ 2″·47 A secondary station of Bombay Longitudinal Series. (For full description *see* Synoptical Volume).	1590·255	1590·872
49	BM 38/47 O	94·2	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 277/1.	1514·998	1515·586
50	BM 39/47 O	95·2	G.T.S. ○ B.M. On S. parapet of W. abutment of culvert near telegraph post No. 277/19.	1484·913	1485·491
51	BM 40/47 O	96·1	G.T.S. ○ B.M. at Bale Railway Station. On stone flooring of verandah opposite window of booking office.	1468·507	1469·078
a/51	BM 41/47 O	98·6	G.T.S. ○ B.M. On S. side of W. abutment of bridge near telegraph post No. 280/3.	1451·209	1451·774
52	BM 42/47 O	98·6	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 281/8.	1468·341	1468·912
53	BM 43/47 O	99·3	G.T.S. ○ B.M. On W. side of S. abutment of bridge over the Ekruk Perennial Canal near telegraph post No. 282/2.	1480·938	1481·534
a/53	BM 44/47 O	99·9	G.T.S. ○ B.M. On N. end of stone coping of platform at Sholapur Railway Station.	1495·610	1496·192
54	BM 45/47 O	99·9	G.T.S. □ B.M. at Sholapur Railway Station. Embedded to S. of Assistant Engineer's office, 6 inches below ground level, 64 feet and 121° from S.W., and 47 feet and 160° from S.E. corners of Assistant Engineer's office, 97 feet and 273° from N.W. corner pillar of verandah of station building, and 80 feet from edge of platform.	1491·657	1492·239
55	BM 46/47 O	100·2	G.T.S. ○ B.M. On N. end of E. parapet of bridge, 7 chains N. of mile-post No. 283.	1495·251	1495·834
56	BM.47/47 O	101·1	G.T.S. ○ B.M. On N. end of 1st step of entrance to the Protestant Church at Sholapur Cantonments.	1548·725	1549·329

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks			Distance from Diksal	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	1/56	BM.48/47 O	101·4	↑ On top of mile-stone No. 1 opposite building named "Arogya Mandir" and near post office in Sholapur cantonments. (Irrigation bench-mark).	1536·256	1536·855
	2/56	BM.49/47 O	101·5	G.T.S. B.M. ○ on stone slab let into flooring of S. verandah of N. wing of Executive Engineer's office, Sholapur.	1560·299	1560·907
	2a/56	BM.50/47 O	101·5	G.T.S. Standard Bench Mark 1906 at Sholapur. Situated within Executive Engineer's office compound, 45 feet from N.W. and S.W. corners of W. verandah of S. wing.	1562·548	1563·157
57		BM.51/47 O	101·3	↑ On E. parapet of bridge near telegraph post No. 283/17. (Irrigation bench-mark).	1529·668	1530·265
	a/57	BM.52/47 O	101·8	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 284/3.	1542·666	1543·268
58		BM.53/47 O	102·0	↑ On E. parapet of culvert near telegraph post No. 284/10. (Irrigation bench-mark).	1553·022	1553·629
59		BM.54/47 O	103·1	G.T.S. ○ B.M. On W. parapet of bridge near telegraph post No. 285/13.	1564·377	1564·989
60		BM.55/47 O	103·9	↑ On E. parapet of bridge near telegraph post No. 286/8. (Irrigation bench-mark).	1538·567	1539·169
61		BM.56/47 O	104·1	↑ On E. parapet of bridge near telegraph post No. 286/12. (Irrigation bench-mark).	1539·738	1540·342
62		BM.57/47 O	105·1	↑ On E. parapet of bridge near telegraph post No. 287/12. (Irrigation bench-mark).	1529·829	1530·429
63		BM.58/47 O	106·7	↑ On E. parapet of bridge near telegraph post No. 289/5. (Irrigation bench-mark).	1464·292	1464·867
64		BM.59/47 O	107·4	G.T.S. ○ B.M. On N. abutment of culvert at level crossing No. 128 near telegraph post No. 289/17.	1481·930	1482·512
65		BM.60/47 O	107·8	↑ On E. parapet of bridge near telegraph post No. 290/6. (Irrigation bench-mark).	1476·805	1477·385

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks		Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
66	BM 61 / 47 O	108·0	↑ On E. parapet of bridge near telegraph post No. 290/9. (Irrigation bench-mark).	1478·989	1479·570
67	BM.35 / 56 C	108·4	↑ On E. parapet of culvert near telegraph post No. 290/17. (Irrigation bench-mark).	1492·072	1492·658
68	BM 36 / 56 C	109·5	G.T.S. □ B.M. at Hotgi Railway Station. Embedded between station and goods platforms, 12 inches below ground level, 465 feet and 302° from B.M. No. 69, 80 feet and 256° from mile-post No. 292, 74 feet and 110° from S.E. end of goods platform above ramp.	1528·785	1529·387
69	BM.37 / 56 C	109·6	G.T.S. ○ B.M. On N.W. end of stone coping of G.I.P. railway platform at Hotgi.	1533·332	1533·936
70	BM.38 / 56 C	109·7	G.T.S. ○ B.M. On S.E. end of stone coping of G.I.P. railway platform at Hotgi.	1533·387	1533·991
a/70	BM 39 / 56 C	110·3	↑ On N. parapet of bridge near telegraph post No. 292/16. (Irrigation bench-mark).	1541·451	1542·058
71	BM 40 / 56 C	111·8	↑ On N. parapet of bridge near telegraph post No. 294/6. (Irrigation bench-mark).	1502·944	1503·538
a/71	BM.41 / 56 C	112·4	↑ On N. parapet of bridge near telegraph post No. 294/18. (Irrigation bench-mark).	1486·357	1486·944
b/71	BM.42 / 56 C	113·7	↑ On N. parapet of bridge near mile-post No. 296. (Irrigation bench-mark).	1505·424	1506·019
72	BM.43 / 56 C	115·4	G.T.S. ○ B.M. On N.W. end of lower stone coping of platform at Tilati Railway Station.	1467·624	1468·207
73	BM.44 / 56 C	115·5	G.T.S. ○ B.M. On S.E. end of lower stone coping of platform at Tilati Railway Station.	1467·577	1468·160
a/73	BM.45 / 56 C	116·5	G.T.S. ○ B.M. On N. parapet between 2nd and 3rd arches from W. of bridge near telegraph post No. 298/16.	1444·648	1445·222
b/73	BM.46 / 56 C	121·7	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 304/4.	1475·764	1476·350

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks			Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
74		BM 47 / 56 C	122·2	G.T.S. □ B.M. at Kadabgaon Railway Station. Embedded in front of station building, 9 inches below ground level, 6 feet from N. well, 133 feet and 196° from S.W., and 140 feet and 219° from S.E. corners of station main building, 230 feet and 264° from B.M. No. 75.	1474·723	1475·314
75		BM.48 / 56 C	122·3	G.T.S. ○ B.M. at Kadabgaon Railway Station. On E. end of stone coping of platform, 65 feet W. of E. edge above ramp.	1479·802	1480·395
76		BM.49 / 56 C	122·8	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 305/6.	1490·746	1491·344
77		BM.50 / 56 C	129·6	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 312/2.	1533·884	1534·501
78		BM.51 / 56 C	131·0	G.T.S. ○ B.M. On 2nd stone step, from bottom, leading up to station building at Boroti Railway Station.	1517·433	1518·043
	a/78	BM.52 / 56 C	132·3	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 314/15.	1475·017	1475·610
79		BM.53 / 56 C	134·7	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 317/4.	1401·189	1401·755
	a/79	BM.54 / 56 C	135·4	G.T.S. ○ B.M. On S. end of W. abutment of bridge over Bori river near telegraph post No. 317/19.	1402·337	1402·903
80		BM.55 / 56 C	136·4	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 318/19.	1436·260	1436·840
81		BM.56 / 56 C	139·2	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 321/14.	1473·294	1473·891
	a/81	BM.57 / 56 C	139·6	G.T.S. ○ B.M. On E. end of stone coping of platform at Dudhni Railway Station.	1479·485	1480·084
	b/81	BM.58 / 56 C	139·6	G.T.S. ○ B.M. On W. end of stone coping of platform at Dudhni Railway Station.	1479·190	1479·789
82		BM.59 / 56 C	139·6	G.T.S. □ B.M. at Dudhni Railway Station. Embedded near S.W. corner of tank-house, 12 inches below ground level, 6 feet and 145° from S.W., and 36 feet and 273° from S.E. corners of tank-house, 94 feet and 12° from N.W. corner of gang (No. 4) quarters, 85 feet and 92° from B.M. No. a/81, and 75 feet and 132° from E. intersection of well with protection wall.	1476·286	1476·884

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks		Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
83	BM.60 / 56 C	139·9	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 322/8.	1487·512	1488·115
84	BM.61 / 56 C	140·7	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 323/4.	1529·316	1529·935
85	BM.62 / 56 C	141·4	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 323/19.	1560·772	1561·404
86	BM.63 / 56 C	143·6	G.T.S. ○ B.M. On N. end of E. abutment of bridge near telegraph post No. 326/2.	1504·020	1504·629
1/86	BM 64 / 56 C	145·2	On upper mark-stone of Badadol, G.T. Survey Hill Station, lat. 17° 20′ 14″·89, long. 76° 25′ 51″·24 A secondary station of Bombay Longitudinal Series. (For full description *see* Synoptical Volume).	1713·273	1713·967
87	BM 65 / 56 C	145·5	G.T.S. ○ B.M. On W. end of stone coping of platform at Kulali Railway Station.	1472·498	1473·096
88	BM.66 / 56 C	145·6	G.T.S. ○ B.M. On E. end of stone coping of platform at Kulali Railway Station.	1472·373	1472·971
89	BM.67 / 56 C	149·8	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 332/6.	1451·572	1452·163
a/89	BM 68 / 56 C	151·9	G.T.S. ○ B.M. On N. parapet of eastern bridge over Murridge river near telegraph post No. 334/8.	1377·828	1378·389
b/89	BM.69 / 56 C	153·9	G.T.S. ○ B.M. On E. end of stone coping of platform at Ghangapur Railway Station.	1440·670	1441·256
90	BM.70 / 56 C	153·9	G.T.S. □ B.M. at Ghangapur Railway Station. Embedded near N.W. corner of tank-house, 12 inches below ground level, 8 feet and 251° from N.W., and 19 feet and 337° from S.W. corners of tank-house, 45 feet and 2° from hydrant at E. end of platform, 141 feet and 11° from N. edge of parapet of pakka well, 52 feet and 26° from B.M. No. b/89, and 22 feet from N.E. corner of wooden fencing of platform.	1437·728	1438·312
a/90	BM.71 / 56 C	153·9	G.T.S. ○ B.M. On stone coping of platform opposite booking office at Ghangapur Railway Station.	1440·819	1441·404
b/90	BM.72 / 56 C	154·0	G.T.S. ○ B.M. On W. end of stone coping of platform at Ghangapur Railway Station.	1440·800	1441·385

Main-Line 26. (Diksal to Gulbarga).

Designation of Bench-marks		Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
91	BM.73 / 56 C	155·3	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 337/17.	1448·148	1448·736
92	BM.74 / 56 C	156·5	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 339/1.	1509·339	1509·952
93	BM.75 / 56 C	157·9	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 340/8.	1567·094	1567·730
a/93	BM.76 / 56 C	160·2	G.T.S. B.M. ○ On N. parapet of bridge near telegraph post No. 342/15.	1502·462	1503·072
94	BM.77 / 56 C	163·0	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 345/10.	1496·546	1497·154
95	BM.78 / 56 C	164·7	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 347/3.	1556·623	1557·255
a/95	BM.79 / 56 C	165·9	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 348/7.	1532·134	1532·756
b/95	BM.80 / 56 C	167·8	G.T.S. B.M. ○ On S. parapet of bridge near telegraph post No. 350/3.	1475·462	1476·061
c/95	BM.81 / 56 C	169·4	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 351/18.	1488·587	1489·192
96	BM.8 / 56 C	170·4	G.T.S. ○ B.M. at Gulbarga Railway Station. On W. end of stone coping of platform, 62 feet E. of W. edge above ramp.	1489·063	1489·671
97	BM.1 / 56 C	170·6	G.T.S. □ B.M. at Gulbarga Railway Station. Embedded to E. of station building just outside wooden platform fencing with upper surface of stone about 6 inches below ground level. It is 69 feet and 71° from S.E., and 64 feet and 89° from N.E. corners of main station building, 74 feet and 101° from N.E. corner of N. projection of main building, 29 feet and 251° from N.W., and 29 feet and 281° from S.W. corners of latrine, and 57 feet from edge of platform.	1488·714	1489·322

Branch-Line 26A. (Sholapur to Bijapur).

Designation of Bench-marks		Distance from Sholapur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.45 / 47 O	0·0	G.T.S. □ B.M. at Sholapur Railway Station. Embedded to S. of Assistant Engineer's office, 6 inches below ground level, 64 feet and 121° from S.W., and 47 feet and 160° from S.E. corners of Assistant Engineer's office, 97 feet and 273° from N.W. corner of pillar of verandah of station building, and 80 feet from edge of platform.	1491·657	1492·239
2	BM 62 / 47 O	2·0	G.T.S. ○ B.M. On S. end of topmost step of entrance to Mahadeo's temple in Moti Bag at Sholapur.	1527·279	1527·878
3	BM 63 / 47 O	2·1	Top of mile-stone No. 2 from Sholapur at S. end of dam of Moti tank.	1542·440	1543·045
4	BM 64 / 47 O	3·1	Top of mile-stone No. 3 from Sholapur.	1556·654	1557·264
5	BM 65 / 47 O	4·1	Top of mile-stone No. 4 from Sholapur.	1552·640	1553·250
6	BM 66 / 47 O	5·2	Top of mile-stone No. 5 from Sholapur.	1500·358	1500·949
7	BM 67 / 47 O	5·5	G T S. ○ B.M. On E. parapet of small bridge opposite S. end of Soregaon village.	1498·754	1499·345
8	BM 68 / 47 O	7·3	G.T S. ○ B.M. On W. parapet of bridge over Ekruk canal, 14 chains S. of mile-stone No. 7 from Sholapur.	1441·104	1441·673
9	BM 69 / 47 O	8·2	Top of mile-stone No. 8 from Sholapur.	1417·415	1417·976
a/9	BM.70 / 47 O	10·1	G T.S. ○ B.M. On S E. end of platform of Kattewa's temple at Vadakval village.	1418·790	1419·352
10	BM.71 / 47 O	11·2	G.T.S. ○ B.M. On N. end of E. parapet of bridge, 4 chains N. of mile-stone No. 11 from Sholapur.	1417·873	1418·437
11	BM.72 / 47 O	12·2	G.T.S. ○ B.M. On N. end of E. parapet of bridge at mile-stone No. 12 from Sholapur.	1442·552	1443·126
12	BM.73 / 47 O	13·2	G.T S. ○ B.M. On E. parapet of bridge, about a chain N. of mile-stone No. 13 from Sholapur.	1492·987	1493·583
13	BM.74 / 47 O	13·9	G.T.S. ○ B.M. On N. end of E. parapet of bridge, 28 chains N. of mile-stone No. 14 from Sholapur.	1472·731	1473·319
14	BM.75 / 47 O	14·8	G.T S. ○ B.M. On E. parapet of bridge, about 33 chains N. of mile-stone No. 15 from Sholapur.	1488·912	1489·508

Branch-Line 26A. (Sholapur to Bijapur).

Designation of Bench-marks		Distance from Sholapur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
15	BM.76 / 47 O	16·2	Top of mile-stone No. 16 from Sholapur.	1448·453	1449·034
16	BM.77 / 47 O	17·2	Top of mile-stone No. 17 from Sholapur.	1405·803	1406·367
17	BM.78 / 47 O	17·6	G.T.S. ○ B.M. On E. parapet of bridge, 29 chains S. of mile-stone No. 17 from Sholapur.	1404·656	1405·219
18	BM.79 / 47 O	19·0	G.T.S. □ B.M. at Takli village, Sholapur district. Embedded opposite W. face of Tuljappa Bagla Bania's samad (tomb) situated near Hanuman's temple, 7 links from S.E. and S.W. corners of tomb and 6 links from centre of same, where letters B.M. are cut.	1385·226	1385·783
19	BM.80 / 47 O	19·5	G.T.S. ○ B.M. On E. side of platform of ferry post on S. bank of Bhima river, near Dharmshala, about ½ mile S of Takli village.	1391·846	1392·406
20	BM.81 / 47 O	21·3	Top of mile-stone No. 21 from Sholapur.	1403·495	1404·062
21	BM.82 / 47 O	25·3	Top of mile-stone No. 25 from Sholapur.	1513·379	1513·995
22	BM.83 / 47 O	25·9	G.T.S. ○ B.M. On E. side of platform or basement of Dipmal (lamp tower) of Maddival Appasami's temple, situated on W. side of Yelgi village, and about 5 chains E. of main road.	1468·687	1469·286
23	BM.84 / 47 O	26·3	Top of mile-stone No. 26 from Sholapur.	1453·639	1454·232
24	BM.85 / 47 O	27·3	Top of mile-stone No. 27 from Sholapur.	1522·567	1523·188
25	BM.86 / 47 O	28·3	Top of mile-stone No. 28 from Sholapur.	1538·543	1539·172
26	BM.87 / 47 O	30·4	Top of mile-stone No. 30 from Sholapur.	1549·367	1550·002
27	BM.88 / 47 O	30·9	G.T.S. □ B.M. at Jhalki, Kaladgi district. Embedded about 1 foot below ground level opposite S. face of large Dipmal (lamp tower) of Virappa's temple, about 1 chain W. of main road from Sholapur to Bijapur, 7 links from S.E. corner, and 6 links from S.W. corner of Dipmal. The letters G.T.S. ○ B.M. are cut on surface of basement on S.E. corner of Dipmal.	1552·992	1553·630
1 / 27	BM.89 / 47 O	34·0	G.T.S. ○ B.M. On S.W. corner of plinth of travellers' bungalow at Gundvan.	1584·502	1585·153

Branch-Line 26A. (Sholapur to Bijapur).

Designation of Bench-marks		Distance from Sholapur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/27	BM 90/47 O	30·9	G.T.S. ○ B.M. On S.E. corner of basement of the large Dipmal (lamp tower) of Virappa's temple, 1 chain W. of main road, and on W. side of Jhalki village.	1556·885	1557·525
28	BM 91/47 O	36·1	G.T.S. ○ B.M. On surface of S.W. corner of Basvanna's temple situated on N. margin of road from Pandharpur to Indi, near some Dhangar tombs, about 5 chains N.E. of Anjotgi village and ¼ mile W. of mile-post No. 6 from Indi.	1581·428	1582·081
a/28	BM 92/47 O	39·6	G.T.S. ○ B.M. On N.E. corner of basement of Dipmal (lamp tower) of Parvulingam's temple on W side of Bevanur village and 24 chains E. of mile-post No. 3 from Indi.	1542·709	1543·346
29	BM.93/47 O	42·2	G.T.S. ○ B.M. On circular platform under a *pipal* tree on S. margin of road from Sholapur to Indi, and about 8 chains W. of Hirandi nala near Indi.	1501·605	1502·228
30	BM.94/47 O	42·4	G.T.S. ○ B.M. On W. end of N. parapet of bridge opposite Bijapur gate of Indi town, and about 6 chains W. of travellers' bungalow.	1502·892	1503·516
a/30	BM 95/47 O	42·5	G.T.S. ○ B.M On plinth of front door of goldsmiths' Guru's samad (tomb), about 7 chains S. of Bijapur gate at Indi and 1 chain W. of road to Bijapur.	1505·760	1506·385
31	BM 96/47 O	42·5	↗ Marked in red on 2nd step on S side of travellers' bungalow at Indi. (Irrigation bench-mark).	1512·067	1512·695
32	BM 97/47 O	42·5	G.T.S. ○ B.M. On S. end of lowest footing of S. steps at E. side of travellers' bungalow at Indi.	1511·558	1512·185
1/32	BM 98/47 O	46·1	× Marked in red on N W. corner of plinth of masjid in Ingalgi village, about 3½ miles N.E. of Indi. (Irrigation bench-mark).	1449·143	1449·744
33	BM.99/47 O	42·8	Top of mile-stone No. 38 from Sholapur.	1532·638	1533·274
34	BM 100/47 O	43·8	Top of mile-stone No. 39 from Sholapur.	1554·935	1555·581
35	BM.101/47 O	45·8	Top of mile-stone No. 41 from Sholapur.	1591·098	1591·763
36	BM.102/47 O	46·0	G.T.S. ○ B.M. On 2nd step of entrance leading down to a pakka square well or "bauli" on W. margin of road, 13 chains S. of mile-stone No. 41 from Sholapur.	1576·504	1577·162
37	BM.103/47 O	47·8	Top of mile-stone No. 43 from Sholapur.	1589·084	1589·750

Branch-Line 26A. (Sholapur to Bijapur).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Sholapur	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
38	BM 104 / 47 O	48·3	G.T.S. □ B.M. at Rugi, Kaladgi district. Embedded a foot below ground level and opposite S. wall of Sidraya's temple, 2 chains W. of main road and ½ mile N. of Rugi village; 9 and 12 links respectively from S.E. and S.W. corners of basement of temple, and 5 links from centre of S. wall.	1549·697	1550·346
39	BM.105 / 47 O	49·8	Top of mile-stone No. 45 from Sholapur.	1572·840	1573·502
40	BM.106 / 47 O	51·8	Top of mile-stone No. 47 from Sholapur.	1575·156	1575·821
41	BM.107 / 47 O	53·9	Top of mile-stone No. 49 from Sholapur.	1537·994	1538·646
a/41	BM.1 / 47 F	55·5	G.T.S. ○ B.M. On W. end of 2nd step of entrance to masjid at W. side of Tamba village.	1528·861	1529·509
b/41	BM.2 / 47 F	55·6	↗ Marked in red on S.W. corner of plinth of travellers' bungalow at Tamba. (Irrigation bench-mark).	1546·040	1546·696
42	BM.1 / 56 D	56·1	Top of mile-stone No. 51 from Sholapur.	1564·972	1565·637
43	BM.2 / 56 D	58·1	Top of mile-stone No. 54 from Sholapur.	1607·635	1608·321
44	BM.3 / 56 D	59·3	G.T.S. ○ B.M. On S W. corner of Dipmal (lamp tower) of Dhangar Gutiraya's temple situated on W. side of Rugi village, and about 1 chain E. of main road.	1599·181	1599·865
45	BM.4 / 56 D	60·1	Top of mile-stone No. 56 from Sholapur.	1592·102	1592·783
46	BM.5 / 56 D	61·0	G.T.S. ○ B.M. On lower rim of broken and disused stone oil mill on W. side of Kadlewar village and near E. margin of main road.	1614·376	1615·067
[illegible]	BM.6 / 56 D	62·1	Top of mile-stone No. 58 from Sholapur.	1659·107	1659·819
48	BM.7 / 56 D	64·2	Top of mile-stone No. 60 from Sholapur.	1717·904	1718·643
49	BM.8 / 56 D	66·2	Top of mile-stone No. 62 from Sholapur.	1750·273	1751·027
50	BM.9 / 56 D	66·5	B.↗M. On stone fixed on W. margin of main road, 25 chains S. of mile-stone No. 62 and ¾ of a mile S. of Newalkonda village. (Irrigation bench-mark).	1758·966	1759·726
51	BM 10 / 56 D	67·9	G.T.S. ○ B.M. On S. end of E. parapet of bridge, 21 chains N. of mile-stone No. 64 from Sholapur.	1722·886	1723·632

Branch-Line 26A. (Sholapur to Bijapur).

Designation of Bench-marks		Distance from Sholapur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
52	BM.11 / 56 D	68·2	Top of mile-stone No. 64 from Sholapur.	1737·020	1737·772
53	BM.12 / 56 D	68·9	↗ Marked in red on stone fixed on W. edge of Indi-Hippargi road, 34 chains N. of mile-stone No. 65, and ¾ mile N. of Hippargi. (Irrigation bench-mark).	1782·368	1783·140
54	BM.13 / 56 D	69·3	Top of mile-stone No. 65 from Sholapur.	1789·585	1790·360
55	BM.14 / 56 D	69·5	↗ Marked in red on E. parapet of slab drain at junction of Sholapur-Bellary and Bijapur-Sindgi roads, opposite N.W. end of Hippargi village. (Irrigation bench-mark).	1787·775	1788·549
56	BM 15 / 56 D	69·6	G.T.S. □ B.M. at Hippargi, Kaladgi district. Embedded about a foot below ground level opposite N. face of most northerly of three small masonry tombs near N.W. end of Hippargi village, 7 chains S.E. of small bridge at junction of Sholapur-Bellary and Bijapur-Sindgi roads. The letters B.M. are cut on N. face of tomb.	1777·794	1778·564
a / 56	BM 16 / 56 D	69·9	↗ Marked in red at N.W. corner of plinth of new dharmshala at Hippargi. (Irrigation bench-mark).	1750·123	1750·881
1 / 56	BM.17 / 56 D	70·8	↗ Marked in red at S.E. corner at ground level of an old Dipmal situated about ½ mile S. of Hippargi and about a chain E. of road to Talikot. (Irrigation bench-mark).	1816·090	1816·876
2 / 56	BM.18 / 56 D	74·4	B.↗M. On stone fixed at end of main canal line on top of Mannur ridge, about ¾ mile S. of Mannur village. (Irrigation bench-mark).	1824·948	1825·738
57	BM.19 / 56 D	70·9	↗ Marked in red on boundary stone on N. margin of road from Hippargi to Bijapur and 36 chains W. of mile-post No. 20 from Bijapur. (Irrigation bench-mark).	1787·078	1787·854
58	BM.20 / 56 D	71·7	↗ Marked in red on boundary stone on N. margin of road, about 23 chains W. of mile-post No. 19 from Bijapur. (Irrigation bench-mark).	1830·540	1831·334
59	BM.21 / 56 D	72·4	G.T.S. ○ B.M. On rock *in situ* at mile-post No. 18 from Bijapur, and on N. side of road from Hippargi to Bijapur.	1785·145	1785·920
60	BM.22 / 56 D	72·5	↗ On stone at S.E. corner of a square well on N. margin of road, 5 chains W. of mile-post No. 18 from Bijapur. (Irrigation bench-mark).	1782·218	1782·991
61	BM.3 / 47 P	74·0	↗ Marked in red on boundary stone on S. margin of road about midway between mile-posts Nos. 16 and 17. (Irrigation bench-mark).	1878·131	1878·944

Branch-Line 26A. (Sholapur to Bijapur).

Designation of Bench-marks		Distance from Sholapur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
62	BM.4 / 47 P	74·5	↗ On boundary stone on S. margin of road, about 10 chains S.E. of Dherwara of Sivangi village and 6 chains W. of mile-post No. 16 from Bijapur. (Irrigation bench-mark).	1872·610	1873·421
63	BM.5 / 47 P	75·0	↗ Marked in red at N.E. corner of bigger tomb of two situated in the Kulkarni's cattle-shed compound on S. side of road and near Sivangi village. (Irrigation bench-mark).	1880·631	1881·445
64		75·9	Destroyed.	1937·908	1938·747
65	BM.6 / 47 P	77·6	[||] Marked in red on stone near a Revenue Survey boundary on S. side of road, about ¼ mile N.E. of Hargalli village, and 5 chains W. of mile-post No. 13. (Irrigation bench-mark).	1901·811	1902·636
66	BM.7 / 47 P	80·9	G.T.S. □ B.M. at Kamatgi, Kaladgi district. Embedded about a foot below ground level opposite N. wall of Maruti's (Hanuman's) temple, and 12 chains due S. of mile-post No. 10 from Bijapur. The letters B.M. are cut on N. wall of temple from N.E. and N.W. corners respectively of which the bench-mark is 7 and 8 links.	1803·653	1804·434
1/66	BM.8 / 47 P	81·2	↗ On S.E. corner of plinth of a square pakka building (in ruins), situated on S. end of band (dam) of Kamatgi tank. (Irrigation bench-mark).	1827·505	1828·297
2/66	BM.9 / 47 P	82·0	R.L. ↗257.35. On S.E. corner of plinth opposite doorway of Parmanand's temple, situated on a small hill on left bank of waste-weir nala, about ½ mile S.W. of Kamatgi tank. (Irrigation bench-mark).	1875·947	1876·759
67	BM.10 / 47 P	91·5	↗ Marked in red on W. side of plinth of doorway of Allapur gate on E. side of Bijapur Fort. (Irrigation bench-mark).	1948·322	1949·166
68		91·6	Destroyed.	1947·225	1948·068
69		91·9	Destroyed.	1938·259	1939·098
70	BM.11 / 47 P	92·9	↗ Marked in red on E. end of S. parapet of bridge on Hippargi road opposite N. entrance to Assar Mahal ruins in Bijapur Fort. (Irrigation bench-mark).	1930·458	1931·294
71	BM.12 / 47 P	93·1	G.T.S. ○ B.M. On inner portion of S.W. corner of Assar Mahal tank in Bijapur Fort.	1951·710	1952·555
1/71	BM.13 / 47 P	93·5	G.T.S. ○ B.M. On 3rd step from bottom of E. flight leading up to sub-judge's court at Bijapur on E. face of public offices building.	1954·922	1955·769

Branch-Line 26A. (Sholapur to Bijapur).

Designation of Bench-marks		Distance from Sholapur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/71	BM.14/47 P	93·4	G.T.S. Standard Bench Mark 1908 at Bijapur. Situated in compound of Executive Engineer's office (P.W.D.) immediately in front of building. The following are distances and bearings of surrounding objects from bench-mark:—S.W. corner of P.W.D. office 63 feet, 333°; S.E. corner of same 62 feet, 46°; S.E. corner of timber shed 101 feet, 309°; W. pillar of gate-way 75 feet.	1939·016	1939·856
1a/71	BM.15/47 P	94·3	B.O.M. On S.E. corner of pedestal of stone column immediately in front of and a few feet S. of entrance to Museum near Gol Gumbaz.	1941·635	1942·476
b/71	BM.16/47 P	94·6	B.O.M. On platform coping in front of 1st and 2nd class passengers' "way in" at Bijapur Railway Station.	1942·459	1943·300
72	BM.17/47 P	93·2	↗ Marked in red on E. wall of cistern near N.E. corner of water tower No. 12, also called Shahaganj tower of Begam tank at Bijapur. (Irrigation bench-mark).	1950·828	1951·673
a/72	BM.18/47 P	93·6	↗ Marked in red on N. wall of cistern near N.W. corner of water tower No. 11 of Begam tank at Bijapur. (Irrigation bench-mark).	1957·105	1957·952
b/72	BM.19/47 P	93·9	↗ Marked in red on floor of S. arch near S.E. corner of Malika Jahan's masjid in Bijapur Fort. (Irrigation bench-mark).	1956·277	1957·124
c/72	BM.20/47 P	94·0	↗ Marked in red on S.E. corner of plinth of Khawas Khan's Guru's tomb, more northerly of two domes called "two sisters" at Bijapur. (Irrigation bench-mark).	1958·524	1959·372
73	BM.21/47 P	94·2	G.T.S. ○ B.M. On N. side of plinth of eastern minaret or tower at entrance to Taj Bauli at Bijapur.	1966·183	1967·035
74	BM.22/47 P	94·3	G.T.S. ○ B.M. On N. end of 5th footing of stone steps at E. entrance to Mamlatdar's kachahri at Bijapur.	1970·807	1971·661
75		94·7	Destroyed.	1997·254	1998·120
1/75	BM.23/47 P	95·2	↗ Marked in red on eastern platform or stone seat at N. or outer side of Shahapur gate at Bijapur. (Irrigation bench-mark).	1965·282	1966·133
2/75	BM.24/47 P	95·3	G.T.S. ○ B.M. On step at E. side of N. or main entrance to Ibrahim Roza domes at Bijapur.	1976·947	1977·803
3/75	BM.25/47 P	95·3	↗ Marked in red on outer door sill at N. or main entrance to Ibrahim Roza domes at Bijapur. (Irrigation bench-mark).	1977·267	1978·123

Main-Line 27. (Diksal to Nira).

Designation of Bench-marks		Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.27/47 J	0·0	G.T.S. □ B.M. at Diksal Railway Station. Embedded 6 inches below ground within railway enclosure. The following are distances and bearings of surrounding objects from bench-mark :—N.E. corner of gangmen's house No. 2, 8 feet and 145°; N.W. corner of same 18 feet and 263°; S.W. corner of water-tank 112 feet and 32°;S.W. upright, N. end of over-bridge 205 feet and 83°.	1657·653	1658·240
2	BM.40/47 J	1·7	Top of mile-stone No. 63. On main road from Poona to Sholapur.	1618·618	1619·193
3	BM.41/47 J	2·0	B.○M. On W. end of N. parapet of bridge, about 25 chains E. of mile-stone No. 63.	1612·676	1613·249
4	BM.42/47 J	2·7	Top of mile-stone No. 64. On main road from Poona to Sholapur.	1614·910	1615·483
5	BM.43/47 J	3·7	Top of mile-stone No. 65. On main road from Poona to Sholapur.	1612·534	1613·108
6	BM.44/47 J	4·5	G.T.S. ○ B.M. On 2nd step from top at back entrance to travellers' bungalow at Kumbhargaon.	1629·810	1630·392
1/6	BM.45/47 J	6·6	Situated at S. end of dam of Bhadalvadi tank. (Irrigation bench-mark).	1671·691	1672·288
7	BM.46/47 J	11·2	G.T.S. ○ B.M. On top step of entrance to Isu carpenter's house in Kalas village.	1826·031	1826·692
1/7	BM.47/47 J	13·9	On top of circular pillar of Kalas, G.T. Survey Hill Station, lat. 18° 9′ 19″·24, long. 74° 49′ 42″·23. A principal station of Mangalore Meridional Series. (For full description *see* Synoptical Volume).	2007·666	2008·393
a/7	BM.48/47 J	16·0	G.T.S. ○ B.M. On N.W. side of plinth of pakka circular well at N.W. side of Bori village.	1778·677	1779·321
8	BM.49/47 J	18·5	B.○M. On E. side of pakka well, 5 chains S. of mile-stone No. 22 at Sansar village on main road from Indapur to Baramati.	1737·061	1737·695
9	BM.50/47 J	18·6	Top of mile-stone No. 22. On main road from Indapur to Baramati.	1739·914	1740·549
10	BM.51/47 J	19·6	Top of mile-stone No. 23. On main road from Indapur to Baramati.	1779·098	1779·747
11	BM.52/47 J	20·6	Top of mile-stone No. 24. On main road from Indapur to Baramati.	1753·558	1754·198
12	BM.53/47 J	21·6	Top of mile-stone No. 25. On main road from Indapur to Baramati.	1766·516	1767·161

Main-Line 27. (Diksal to Nira).

Designation of Bench-marks			Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
13		BM.54/47 J	22·1	G.T.S. ○ B.M. On W. side of kerb of pakka well, N. of main road and about midway between mile-stones Nos. 25 and 26, on main road from Indapur to Baramati.	1735·696	1736·330
14		BM.55/47 J	22·6	Top of mile-stone No. 26. On main road from Indapur to Baramati.	1742·241	1742·875
15		BM.56/47 J	23·6	Top of mile-stone No. 27. On main road from Indapur to Baramati.	1758·300	1758·940
16		BM.57/47 J	24·5	Top of mile-stone No. 28. On main road from Indapur to Baramati.	1796·113	1796·767
17		BM.58/47 J	25·6	Top of mile-stone No. 29. On main road from Indapur to Baramati.	1793·437	1794·088
18		BM.59/47 J	26·6	Top of mile-stone No. 30. On main road from Indapur to Baramati.	1761·243	1761·882
19		BM.60/47 J	26·8	G.T.S. ○ B.M. On surface of a pakka masonry block raised over a tomb alongside main road from Indapur to Baramati, 5 chains S. of Motibagh.	1768·881	1769·523
20		BM.61/47 J	27·6	Top of mile-stone No. 31. On main road from Indapur to Baramati.	1777·765	1778·410
	1/20	BM.62/47 J	27·8	↗ On S.W. corner of platform of Maruti's temple E. of Jalouchi gate of Baramati town. (Irrigation bench-mark).	1790·495	1791·145
21		BM.63/47 J	27·6	G.T.S. □ B.M. at Baramati. Embedded 6 inches below surface of ground opposite Gonodi gate, 178 and 185 links respectively from E. and W. bastions at S. entrance to town, 155 links from S.E. corner of Dharmshala and 100 links from toll-house.	1765·947	1766·588
22		BM.64/47 J	27·8	G.T.S. ○ B.M. On Mahadeo's temple on W. bank of Karha river at Baramati.	1758·279	1758·917
23		BM.65/47 J	30·4	B.○M. On top of miniature stone temple alongside main road from Baramati to Malegaon.	1803·310	1803·96[illegible]
24		BM.66/47 J	31·9	↗ On S.W. corner of pakka cistern, 41 links N.E. of masjid W. of S. Malegaon village. (Irrigation bench-mark).	1798·841	1799·496
25		BM.67/47 J	32·7	G.T.S. ○ B.M. On N. side of step at entrance to enclosure of Nagoba's temple on S. side of road from Baramati to Nira bridge and about ½ mile W. of S. Malegaon village.	1843·921	1844·592
26		BM.68/47 J	33·1	↗ On stone embedded on N. side of road from Baramati to Nira bridge, 2 miles E. of Pandara village. The stone is marked on top 144 in red, and 39 in black on one face of it. (Irrigation bench-mark).	1802·355	1803·011

Main-Line 27. (Diksal to Nira).

Designation of Bench-marks			Distance from Diksal	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
27		BM.69 / 47 J	35·2	↗ On surface of stone embedded at N.E. end of Pandara village and about 150 links S. of road from Baramati to Nira bridge. (Irrigation bench-mark).	1797·306	1797·960
	a / 27	BM.70 / 47 J	35·2	G.T.S. ○ B.M. On N.W. corner of plinth of Maruti's temple at N.E. end of Pandara village.	1803·599	1804·256
28		BM.71 / 47 J	39·9	↗ On N.E. corner of plinth of Satti temple near Maruti's temple E. of Karhala village. (Irrigation bench-mark).	1811·629	1812·289
29		BM.72 / 47 J	42·5	↗ On lowest step to entrance of Mahadeo's temple on N. bank of a nala at S.W. end of Vadgaon village. (Irrigation bench-mark).	1799·481	1800·136
30		BM.73 / 47 J	43·5	↗ On N. corner of plinth of a chauki, about 1 mile W. of Vadgaon village, and S. of road from Baramati to Nira bridge. (Irrigation bench-mark).	1817·695	1818·357
	a / 30	BM.74 / 47 J	43·6	↗ Embedded 8 chains N. of chauki situated 1 mile W. of Vadgaon village. (Irrigation bench-mark).	1824·414	1825·078
31		BM.75 / 47 J	50·2	On N.E. corner of plinth of Dipmal in front of Satwai's temple at S.E. end of Kanarvadi village. The bench-mark is marked R.L. 141·72. (Irrigation bench-mark).	1800·588	1801·247
32		BM.76 / 47 J	52·9	G.T.S. □ B.M. at Nira bridge. Embedded about 6 inches below ground level within compound of travellers' bungalow, 10 and 31 feet respectively W. of N.W. and S.W. corners of bungalow, and 23 feet E. of fencing forming boundary of bungalow premises.	1793·643	1794·300

Main-Line 28. (Kedgaon to Nira).

Designation of Bench-marks		Distance from Kedgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.1 / 47 J	0·0	G.T.S. □ B.M. at Kedgaon Railway Station. Embedded 6 inches below ground, within railway enclosure, 73 feet S. of back return corner of palisade fence at W. end of station building and 71 feet from S.W. corner of station master's quarters. The following are distances and bearings of surrounding objects from bench-mark:—S.W. corner, water-tank 205 feet, 301°; N.W. corner, station master's house 68 feet 91°; N.E. corner, porter's house 5 feet, 157°.	1775·857	1776·468
2	BM.77 / 47 J	0·5	Top of mile-stone No. 24. On main road from Satara to Kedgaon.	1780·360	1780·974
3	BM.78 / 47 J	1·2	Situated 2 chains S. of Mutha canal and 100 links E. of main road from Satara to Kedgaon and marked R.L. 140 84. (Irrigation bench-mark).	1801·564	1802·186
4	BM.79 / 47 J	1·5	Top of mile-stone No. 25. On main road from Satara to Kedgaon.	1801·176	1801·799
5	BM 80 / 47 J	2·5	Top of mile-stone No. 26. On main road from Satara to Kedgaon.	1879·497	1880·147
6	BM 81 / 47 J	3·5	Top of mile-stone No. 27. On main road from Satara to Kedgaon.	1897·126	1897·784
7	BM.82 / 47 J	4·5	Top of mile-stone No. 28. On main road from Satara to Kedgaon.	1852·741	1853·386
8	BM.83 / 47 J	5·5	Top of mile-stone No. 29. On main road from Satara to Kedgaon.	1911·017	1911·684
9	BM.84 / 47 J	6·5	Top of mile-stone No. 30. On main road from Satara to Kedgaon.	1918·097	1918·766
10	BM.85 / 47 J	7·5	Top of mile-stone No. 31. On main road from Satara to Kedgaon.	1960·629	1961·315
11	BM.86 / 47 J	8·5	Top of mile-stone No. 32. On main road from Satara to Kedgaon.	2069·666	2070·393
12	BM.87 / 47 J	9·5	Top of mile-stone No. 33. On main road from Satara to Kedgaon.	2109·037	2109·779
13	BM.88 / 47 J	10·3	G.T.S. □ B.M. Embedded 69 and 72 feet respectively E. of N.E. and S.E. corners of wall which surrounds Shamansura Bawa's masjid, 200 yards N.E. of Supa village and about 100 yards S. of main road from Satara to Kedgaon. A mahomedan tomb 4 feet W. of bench-mark has letters B.M. cut on side facing it.	2075·935	2076·666
14	BM.89 / 47 J	10·7	Top of mile-stone No. 34. On main road from Satara to Kedgaon.	2078·469	2079·203

Main-Line 28. (Kedgaon to Nira).

Designation of Bench-marks			Distance from Kedgaon	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
15		BM.90 / 47 J	11·7	Top of mile-stone No. 35. On main road from Satara to Kedgaon.	2066·471	2067·200
16		BM.91 / 47 J	12·7	Top of mile-stone No. 36. On main road from Satara to Kedgaon.	2047·457	2048·182
17		BM.92 / 47 J	13·7	Top of mile-stone No. 37. On main road from Satara to Kedgaon.	2051·599	2052·327
18		BM.93 / 47 J	14·7	Top of mile-stone No. 38. On main road from Satara to Kedgaon.	2014·623	2015·338
19		BM.94 / 47 J	15·7	Top of mile-stone No. 39. On main road from Satara to Kedgaon.	2012·361	2013·077
20		BM.95 / 47 J	16·2	G.T.S. ○ B.M. On steps of Dhaiguda's vada at Morgaon village, about 4 chains W. of main road from Satara to Kedgaon.	2020·669	2021·388
21		BM.96 / 47 J	16·7	Top of mile-stone No. 40. On main road from Satara to Kedgaon.	2026·231	2026·954
22		BM.97 / 47 J	17·7	Top of mile-stone No. 41. On main road from Satara to Kedgaon.	2043·171	2043·900
23		BM.98 / 47 J	18·7	Top of mile-stone No. 42. On main road from Satara to Kedgaon.	2070·446	2071·187
24		BM.99 / 47 J	19·7	Top of mile-stone No. 43. On main road from Satara to Kedgaon, near Morte village.	2024·194	2024·921
25		BM.100 / 47 J	20·7	Top of mile-stone No. 44. On main road from Satara to Kedgaon.	1987·251	1987·964
26		BM.101 / 47 J	21·8	Top of mile-stone No. 45. On main road from Satara to Kedgaon.	1989·599	1990·315
27		BM.102 / 47 J	22·8	Top of mile-stone No. 46. On main road from Satara to Kedgaon.	2029·915	2030·648
28		BM.103 / 47 J	23·8	Top of mile-stone No. 47. On main road from Satara to Kedgaon.	1974·605	1975·320
29		BM.104 / 47 J	24·8	Top of mile-stone No. 48. On main road from Satara to Kedgaon.	2028·009	2028·743
30		BM 105 / 47 J	25·8	Top of mile-stone No. 49. On main road from Satara to Kedgaon.	2001·916	2002·641
31		BM.75 / 47 J	29·4	On N.E. corner of plinth of Dipmal in front of Satwai's temple at S.E. end of Kanarvadi village. The bench-mark is marked R.L. 141·72. (Irrigation bench-mark).	1800·588	1801·247

Main-Line 28. (Kedgaon to Nira).

Designation of Bench-marks		Distance from Kedgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1/31	BM.106/47 J	33·1	On N.E. corner of plinth of Mhasoba's temple to E. of Karanja village. The bench-mark is marked R.L. 164·67. (Irrigation bench-mark).	1825·286	1825·952
32	BM.107/47 J	32·3	Top of mile-stone No. 54. On main road from Satara to Kedgaon.	1792·091	1792·747
1/32	BM 108/47 J	33·8	Situated at N.W. corner of Dipmal in front of Bahiroba's temple in middle of Pimpra village. The bench-mark is marked R.L. 157·33. (Irrigation bench-mark).	1816·326	1816·991
a/32	BM.109/47 J	32·3	G.T.S. ○ B.M. On N. step of travellers' bungalow at old Nira bridge.	1794·899	1795·556
33	BM.76/47 J	32·3	G.T.S. □ B.M. at Nira bridge. Embedded about 6 inches below ground level within compound of travellers' bungalow, 10 and 31 feet respectively W. of N.W. and S.W. corners of bungalow, and 23 feet E. of fencing forming boundary of bungalow premises.	1793·643	1794·300

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks			Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.76 / 47 J	0·0	G.T.S. □ B.M. at Nira bridge. Embedded about 6 inches below ground level within compound of travellers' bungalow, 10 and 31 feet respectively W. of N.W. and S.W. corners of bungalow, and 23 feet E. of fencing forming boundary of bungalow premises.	1793·643	1794·300
2		BM.110 / 47 J	0·3	Top of mile-stone No. 33. On old main road from Poona to Satara.	1799·871	1800·530
3		BM.111 / 47 J	1·3	Top of mile-stone No. 32. On old main road from Poona to Satara.	1854·340	1855·020
4		BM.112 / 47 J	2·5	Top of mile-stone No. 31. On old main road from Poona to Satara.	1895·801	1896·499
5		BM.113 / 47 J	3·2	Top of mile-stone No. 30. On old main road from Poona to Satara.	1891·807	1892·503
6		BM.114 / 47 J	4·3	Top of mile-stone No. 29. On old main road from Poona to Satara.	1939·236	1939·951
	1/6	BM.115 / 47 J	5·0	G.T.S. ○ B.M. at N.E. corner of Shelka's Gumbad or Tomb. About ½ mile W. of Loland village, 100 feet S. of cart-road leading from Loland to Kheir, and about 200 yards S. of Khemawanti river.	1943·895	1944·612
7		BM.116 / 47 J	5·2	On top of mile-stone No. 28. On old main road from Poona to Satara.	1982·039	1982·770
8		BM.117 / 47 J	6·2	G.T.S. ○ B.M. On W. parapet of bridge on old road from Poona to Satara, 9 chains N. of mile-stone No. 27.	1999·417	2000·157
9		BM.118 / 47 J	6·3	On top of mile-stone No. 27. On old main road from Poona to Satara.	1995·745	1996·484
10		BM.119 / 47 J	7·2	On top of mile-stone No. 26. On old main road from Poona to Satara.	2037·678	2038·434
11		BM.1 / 47 K	8·2	On top of mile-stone No. 25. On old main road from Poona to Satara.	2101·100	2101·879
12		BM.2 / 47 K	9·4	On top of mile-stone No. 24. On old main road from Poona to Satara.	2139·969	2140·767
13		BM.3 / 47 K	10·1	G.T.S. ○ B.M. On W. parapet of bridge at Salpi. On old main road from Poona to Satara, 17 chains N. of mile-stone No. 23.	2170·971	2171·783
14		BM.4 / 47 K	10·3	On top of mile-stone No. 23. On old main road from Poona to Satara.	2192·830	2193·650

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
15	BM.5 / 47 K	10·9	G.T.S. ○ B.M. On W. parapet of bridge on old main road from Poona to Satara, 43 chains S. of mile-stone No. 23.	2209·975	2210·802
16	BM.6 / 47 K	11·3	On top of mile-stone No. 22. On old main road from Poona to Satara.	2255·519	2256·363
17	BM.7 / 47 K	12·4	On top of mile-stone No. 21. On old main road from Poona to Satara.	2459·236	2460·158
18	BM.8 / 47 K	13·4	On top of mile-stone No. 20. On old main road from Poona to Satara.	2502·872	2503·813
19	BM.9 / 47 K	13·4	G.T.S. ○ B.M. On pavement of road, about 15 feet N.E. of a *nim* and a *banian* tree, about 7 chains S. of mile-stone No. 20.	2494·766	2495·704
20	BM.10 / 47 K	14·3	○ On coping of E. parapet of bridge on old main road from Poona to Satara, 50 yards W. of a ruined temple.	2547·248	2548·206
21	BM.11 / 47 K	14·9	G.T.S. ○ B.M. On coping of W. parapet of bridge on old main road from Poona to Satara, 35 chains N. of mile-stone No. 18.	2630·122	2631·114
22	BM.12 / 47 K	15·4	On top of mile-stone No. 18. On old main road from Poona to Satara.	2648·990	2649·989
23	BM 13 / 47 K	16·4	On top of mile-stone No. 17. On old main road from Poona to Satara.	2624·483	2625·475
24	BM 14 / 47 K	17·4	On top of mile-stone No. 16. On old main road from Poona to Satara.	2574·814	2575·787
25	BM.15 / 47 K	17·8	G.T.S. ○ B.M. On N. end of W. parapet of bridge on main road from Poona to Satara across Talkira river, 30 chains S. of mile-stone No. 16.	2527·460	2528·418
26	BM.16 / 47 K	18·4	Top of mile-stone No. 15. On old main road from Poona to Satara.	2549·640	2550·606
27	BM.17 / 47 K	19·4	Top of mile-stone No. 14. On old main road from Poona to Satara.	2473·656	2474·596
28	BM.18 / 47 K	21·4	Top of mile-stone No. 12. On old main road from Poona to Satara.	2457·196	2458·132
29	BM.19 / 47 K	21·7	G.T.S. ○ B.M. On E. end of S. parapet of bridge on main road from Poona to Satara, about ½ mile N. of Ambuda village.	2455·355	2456·290
30	BM.20 / 47 K	22·3	Top of mile-stone No. 11. On old main road from Poona to Satara.	2434·930	2435·860

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
31	BM 21 / 47 K	23·3	Top of mile-stone No. 10. On old main road from Poona to Satara.	2419·680	2420·607
32	BM.22 / 47 K	23·5	G.T.S. ○ B.M. On S. end of E. parapet of bridge, about 14 chains S. of mile-stone No. 10.	2389·756	2390·671
33	BM 23 / 47 K	25·4	Top of mile-stone No. 8. On old main road from Poona to Satara.	2241·867	2242·728
34	BM.24 / 47 K	26·4	Top of mile-stone No. 7. On old main road from Poona to Satara.	2160·694	2161·524
35	BM.25 / 47 K	27·4	Top of mile-stone No. 6. On old main road from Poona to Satara.	2105·929	2106·740
36	BM.26 / 47 K	27·6	G.T.S. ○ B.M. On E. end of N. parapet, above inscription tablet, of bridge across Krishna river on main road from Poona to Satara.	2092·557	2093·363
37	BM.27 / 47 K	28·4	Top of mile-stone No. 5. On old main road from Poona to Satara.	2120·250	2121·066
38	BM 28 / 47 K	29·4	Top of mile-stone No. 4. On old main road from Poona to Satara.	2181·394	2182·236
39	BM.29 / 47 K	30·4	Top of mile-stone No. 3. On old main road from Poona to Satara.	2114·085	2114·903
40	BM.30 / 47 K	30·9	G.T.S. ○ B.M. On E. end of N. parapet, above inscription tablet, of bridge across Vena river.	2064·638	2065·437
41	BM 31 / 47 K	31·4	Top of mile-stone No. 2. On old main road from Poona to Satara.	2104·774	2105·589
42	BM.32 / 47 K	32·1	G.T.S. ○ B.M. at N.E. corner of plinth of a small temple called Maruti's temple, about 50 feet N. of main road and ½ mile E. of travellers' bungalow at Satara.	2138·152	2138·979
43	BM.33 / 47 K	32·4	Top of mile-stone No. 1. On old main road from Poona to Satara.	2157·249	2158·084
44	BM.34 / 47 K	32·8	G.T.S. ○ B.M. On S.W. corner of plinth of a pakka well, 100 yards S. of travellers' bungalow at Satara.	2175·411	2176·255
1/44	BM.35 / 47 K	34·1	G.T.S. ○ B.M. On top step of cistern at Police Head-quarters, Satara.	2301·628	2302·521

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks			Distance from Nira	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/44	BM 36/47 K	33·3	G.T.S. Standard Bench Mark 1907 at Satara. Situated in compound of St. Thomas's Church, 252 and 69 feet respectively, from S.E. corner of church and W. gate-post. The former bears 84° from bench-mark.	2202·506	2203·361
45		BM.37/47 K	32·8	G.T.S. ○ B.M. On S. end of front steps of W. entrance to travellers' bungalow at Satara.	2187·279	2188·128
46		BM.1/47 G	32·9	G.T.S. □ B.M. at Satara. Embedded 6 inches below ground, within compound of travellers' bungalow, 87 and 93 feet respectively W. of N.W. and S.W. corners of same, and 38 feet E. of milk-bush hedge which forms N. boundary of bungalow premises. A masonry pillar 5 feet high is built 8 feet W. of bench-mark.	2182·838	2183·685
	1/46	BM.38/47 K	33·3	On stone let into masonry pavement near front door of St. Thomas's Church at Satara, and marked [135 feet above Yenna bridge B.M.] (Irrigation bench-mark).	2197·812	2198·665
	2/46	BM.39/47 K	33·4	G.T.S. ○ B.M. On front step of St. Thomas's Church, Satara.	2198·285	2199·138
47		BM.40/47 K	33·6	Top of mile-stone No. 69. On main road from Poona to Satara, about 150 links W. of General Post Office at Satara.	2313·356	2314·253
48		BM.41/47 K	33·6	G.T.S. ○ B.M. On pavement of verandah opposite front door of Post Office, Satara.	2310·984	2311·881
49		BM.42/47 K	34·3	B.○M. On E. parapet of bridge on main road from Satara to Kolhapur, E. of Gholvadi village and 100 links W. of toll house at Satara.	2284·699	2285·586
50		BM.43/47 K	34·5	G.T.S. ○ B.M. On a smooth stone at N.E. or inner corner of well in bed of a tank, about 150 feet N.E. of main road from Satara to Kolhapur, 200 yards S. of Shetavadi village, and the same distance W. from Satara Dharmshala.	2272·124	2273·008
51		BM.44/47 K	34·7	Top of mile-stone No. 1. On main road from Satara to Tasgaon.	2264·352	2265·233
52		BM.45/47 K	35·7	Top of mile-stone No. 2. On main road from Satara to Tasgaon.	2203·301	2204·158
53		BM.46/47 K	36·7	Top of mile-stone No. 3. On main road from Satara to Tasgaon.	2138·932	2139·764
54		BM.47/47 K	37·9	G.T.S. ○ B.M. On N. parapet of bridge on main road from Satara to Tasgaon, 18 chains E. of mile-stone No. 4.	2081·595	2082·405

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
55	BM.48 / 47 K	38·7	Top of mile-stone No. 5. On main road from Satara to Tasgaon.	2073·384	2074·192
56	BM.49 / 47 K	38·9	B.O.M. On S. parapet of W. abutment of bridge.	2065·551	2066·357
57	BM.50 / 47 K	39·6	B.O.M. On centre of N. parapet of bridge.	2061·503	2062·307
58	BM.51 / 47 K	39·8	G.T.S. ○ B.M. On coping of E. end of S. parapet of bridge, about 5 chains S. of Chichnar village.	2066·218	2067·024
59	BM.52 / 47 K	40·7	Top of mile-stone No. 7. On main road from Satara to Tasgaon.	2070·554	2071·362
60	BM.53 / 47 K	41·7	Top of mile-stone No. 8. On main road from Satara to Tasgaon.	2105·438	2106·261
61	BM.54 / 47 K	42·4	B.O.M. On W. end of N. parapet of bridge, about 5 chains S. of Tasgaon village.	2045·698	2046·498
62	BM.55 / 47 K	43·7	Top of mile-stone No. 10. On main road from Satara to Tasgaon.	2073·106	2073·917
63	BM.56 / 47 K	44·1	B.O.M. On N. parapet of culvert on main road from Satara to Tasgaon, 31 chains E. of mile-stone No. 10.	2059·459	2060·264
64	BM.57 / 47 K	46·8	Top of mile-stone No. 13. On main road from Satara to Tasgaon.	2107·551	2108·379
65	BM.58 / 47 K	48·7	G.T.S. □ B.M. at Rahmatpur. Embedded 9 inches below level of ground, in open space in front of Rahmatullah Khan's tomb alongside main road from Satara to Tasgaon. The bench-mark is 6 links S. of platform (common to a masjid and a tomb) on the side of which the letters B.M. are cut; 111 links E. from S.W. corner of masjid, 100 links W. from S.E. corner of tomb, and 300 links N.W. from mile-stone No. 15 on main road.	2125·297	2126·132
66	BM.59 / 47 K	48·8	Top of mile-stone No. 15. On main road from Satara to Tasgaon.	2124·208	2125·043
67	BM.60 / 47 K	49·9	Top of mile-stone No. 16. On main road from Satara to Tasgaon.	2200·425	2201·292
68	BM.61 / 47 K	50·8	Top of mile-stone No. 17. On main road from Satara to Tasgaon.	2226·778	2227·655
69	BM.62 / 47 K	51·5	B.O.M. On W. end of S. parapet of bridge.	2234·856	2235·737
70	BM.63 / 47 K	51·8	Top of mile-stone No. 18. On main road from Satara to Tasgaon.	2264·465	2265·359

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
71	BM.64 / 47 K	52·4	B.O.M. On N.W. end of S. parapet of bridge.	2245·419	2246·306
72	BM 65 / 47 K	52·9	Top of mile-stone No. 19. On main road from Satara to Tasgaon.	2249·921	2250·810
73	BM.66 / 47 K	53·7	G.T.S. O B.M. On S.E. corner of Dipmal in front of Bhairoba's temple, E. of Nhavi village.	2310·345	2311·257
74	BM.67 / 47 K	53·8	× Marked in red on S.W. corner of plinth of a ruined tomb, about 6 chains S.E. of Bhairoba's temple at Nhavi village. It is supposed to be an Irrigation bench-mark of the high level survey of the Krishna canal.	2315·824	2316·739
75	BM 68 / 47 K	55·0	Top of mile-stone No. 21. On main road from Satara to Tasgaon.	2355·115	2356·048
76	BM 69 / 47 K	55·3	B.O.M. On W. parapet of bridge, about 8 chains S. of a toll-house.	2359·922	2360·857
77	BM 70 / 47 K	56·0	Top of mile-stone No. 22. On main road from Satara to Tasgaon.	2565·433	2566·439
78	BM.71 / 47 K	56·3	O On rock, 10 links E. of main road from Satara to Tasgaon, 314 links N. of junction of road to Aundh with main road.	2597·800	2598·829
1/78	BM.72 / 47 K	59·1	G.T.S. O B.M. On N.E. corner of a rectangular block of masonry raised over a tomb, about 20 chains W. of Aundh village, 25 links N.W. of road leading to Aundh and 150 links N. of a *sati* temple.	2631·752	2632·794
2/78	BM 73 / 47 K	59·3	B.O.M. On coping at S. end of W. parapet of bridge over a nala near Gusavi's *vadi* at Aundh.	2607·472	2608·504
3/78	BM.74 / 47 K	59·5	G.T.S. O B.M. On third and last step (from bottom) of entrance to Ruppuri Mahant's samad (tomb) at N.W. end of Ambabái's tank at Aundh.	2615·893	2616·927
4/78	BM.75 / 47 K	62·3	On top of rectangular protecting pillar of Aundh, G.T. Survey Station, lat. 17° 33′ 18″·25, long. 74° 21′ 35″·05. A principal station of Mangalore Meridional Series. (For full description *see* Synoptical Volume).	3133·314	3134·555
79	BM.76 / 47 K	57·0	Top of mile-stone No. 23. On main road from Satara to Tasgaon.	2558·838	2559·854
80	BM 77 / 47 K	57·6	B.O.M. On E. parapet of bridge, 48 chains S. of mile-stone No. 23.	2538·548	2539·556
81	BM 78 / 47 K	58·0	Top of mile-stone No. 24. On main road from Satara to Tasgaon.	2509·770	2510·766

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
82	BM.79 / 47 K	59·0	Top of mile-stone No. 25. On main road from Satara to Tasgaon.	2458·498	2459·476
83	BM.80 / 47 K	59·4	G.T.S. ○ B.M. On a rectangular masonry block raised over a tomb alongside main road, and about 2 chains W. of Kálambi village.	2450·421	2451·396
84	BM.81 / 47 K	60·0	Top of mile-stone No. 26. On main road from Satara to Tasgaon.	2419·338	2420·303
85	BM.82 / 47 K	61·1	Top of mile-stone No. 27. On main road from Satara to Tasgaon.	2390·960	2391·916
86	BM.83 / 47 K	61·5	G.T.S. □ B.M. at Pusesavli Town. Embedded 6 inches below level of ground, 46 and 20 links respectively from N.W. and S.W. corners of dharmshala, 90 links S. of road leading to travellers' bungalow and 42 links N. of road leading to town. The letters B.M. are cut on W. wall of dharmshala opposite the bench-mark.	2380·023	2380·975
87	BM.84 / 47 K	61·6	× Marked in red on N.W. corner of plinth of Ambarpuri's samad (tomb) near Savaleshvar Mahadeo's temple at Pusesavli. The letters B.M. are cut just above red mark. (Irrigation bench-mark).	2379·430	2380·382
88	BM.85 / 47 K	63·6	G.T.S. ○ B.M. On N. corner of a small *sati* temple, about 20 chains N.W. of Vadgaon village.	2357·280	2358·225
89	BM.86 / 47 K	63·8	G.T.S. ○ B.M. at Vadgaon Village. On upper step of a pakka platform round a *pipal* tree.	2347·678	2348·620
90	BM.87 / 47 K	66·2	B.○M. On rock in front of Marimata's temple at S.E. end of Rhatni village.	2379·062	2380·021
91	BM.88 / 47 K	71·4	Top of mile-stone No. 26. On main road between Masur and Mayni.	2306·214	2307·153
92	BM.89 / 47 K	72·5	Top of mile-stone No. 27. On main road between Masur and Mayni.	2262·194	2263·115
93	BM.90 / 47 K	74·6	G.T.S. ○ B.M. On Vitoba Mahajan's tomb in front of Mahadeo's temple, and about 2 chains S. of Vitoba's temple in Chitli village.	2166·830	2167·712
94	BM.91 / 47 K	78·2	B.○M. On S.E. corner of a tomb consisting of a rectangular block of stone masonry, 40 links N. of a *pipal* tree to N.E. of and close to Karandvadi village on right bank of Yerla river. The irrigation bench-mark marked ↗ is alongside of it and 0·028 foot lower.	2123·343	2124·209
95	BM.92 / 47 K	84·6	B.○M. On pakka pavement of main road from Karad to Vita, about 3 chains W. of Hanumantvadi village.	2053·368	2054·210

Main-Line 29 (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
96	BM 93 / 47 K	87·5	G.T.S. ○ B.M. On W. plinth of Maruti's temple at N. end of Seoni village.	2045·108	2045·946
97	BM 94 / 47 K	90·0	G.T.S. □ B.M. at Vangi village. Embedded about 6 inches below level of ground, in compound of travellers' bungalow, 27 and 24 links respectively from N.E. and N.W. corners of bungalow, 104 links S. of boundary hedge to N. and 70 links S.W. of cook-house. The letters B.M. are cut on N. wall of bungalow.	2080·213	2081·070
98	BM.95 / 47 K	90·5	Top of mile-stone No. 44. On main road from Satara to Tasgaon.	2079·077	2079·934
99	BM.96 / 47 K	91·5	Top of mile-stone No. 45. On main road from Satara to Tasgaon.	2073·367	2074·223
100	BM.97 / 47 K	92·5	Top of mile-stone No. 46. On main road from Satara to Tasgaon.	2040·540	2041·383
101	BM 98 / 47 K	94·6	Top of mile-stone No. 48. On main road from Satara to Tasgaon.	1993·141	1993·968
102	BM 99 / 47 K	98·9	G.T.S. □ B.M. Embedded 6 inches below ground, next to a Dipmal N. of Narsuba's temple, about 200 yards N.E. of Kundal village, 7 links from N.E. and N.W. corners of Dipmal and 86 links E. of temple. The letters B.M. are cut on N. face of the Dipmal.	1924·441	1925·241
103	BM.100 / 47 K	99·3	G.T.S. ○ B.M. On a masonry block raised over a tomb N. of Wetala's temple at N. end of Kundal village.	1935·897	1936·702
104	BM.101 / 47 K	103·6	G.T.S. ○ B.M. On N. end of W. parapet of bridge over Krishna canal, about 10 chains S.W. of canal bungalow and about ½ mile N. of Takari village.	1847·288	1848·056
105	BM.102 / 47 K	104·4	G.T.S. ○ B.M. On well at N. end of Dudari village, 150 links S. of main road from Karad to Tasgaon.	1828·316	1829·076
106	BM.103 / 47 K	106·0	106 / ∧ Embedded on right bank of Krishna canal in a field, 1½ miles N. of Retra village. The stone is marked 106 / ∧ on top and 24 on side. (Irrigation bench-mark).	1840·373	1841·140
107	BM.104 / 47 K	108·4	B.○M. On S.W. corner of platform of Mahadeo's temple E. of Shirta village.	1811·744	1812·500
108	BM.105 / 47 K	109·6	B.○M. On S. end of first step from bottom at entrance to Mahadeo's temple to N. of Bahe village.	1809·642	1810·397
109	BM.106 / 47 K	114·1	G.T.S. □ B.M. at Nerla. Embedded about 6 inches below ground, in compound of travellers' bungalow, about 20 chains N.E. of main road from Satara to Kolhapur, 24 and 76 links respectively from E. and S. corners of bungalow, and 86 links N. of cook-house. The letters B.M. are cut on S.E. wall of bungalow.	1898·172	1898·969

Main-Line 29 (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
110	BM.107 / 47 K	114·5	Top of mile-stone No. 115. On main road from Satara to Kolhapur.	1875·222	1876·010
111	BM.108 / 47 K	115·3	O On fourth kerb-stone from N. end of W. parapet of bridge, 18 chains N. of mile-stone No. 116.	1875·824	1876·612
112	BM.109 / 47 K	116·2	O On kerb-stone at N.W. end of bridge, about 6 chains N. of dharmshala.	1885·725	1886·519
113	BM.110 / 47 K	116·3	B.OM. On top step at S.W. entrance to dharmshala N. of main road, and about 20 chains N. of Pet village.	1888·030	1888·825
114	BM 111 / 47 K	117·5	Top of mile-stone No. 118. On main road from Satara to Kolhapur.	1933·917	1934·733
115	BM.112 / 47 K	118·5	Top of mile-stone No. 119. On main road from Satara to Kolhapur.	1975·259	1976·094
116	BM.113 / 47 K	119·0	B.OM. On E. end of S. parapet of bridge, about 42 chains S.E. of mile-stone No. 119.	1985·672	1986·512
117	BM.114 / 47 K	119·5	Top of mile-stone No. 120. On main road from Satara to Kolhapur.	1984·299	1985·138
118	BM.115 / 47 K	120·5	Top of mile-stone No. 121. On main road from Satara to Kolhapur.	1979·067	1979·906
119	BM.116 / 47 K	120·6	B.OM. On S. end of W. parapet of bridge, 6 chains S. of mile-stone No. 121, and about 3 chains S. of Kamberi village.	1979·895	1980·735
120	BM.1 / 47 L	121·5	Top of mile-stone No. 122. On main road from Satara to Kolhapur.	1986·910	1987·754
121	BM.2 / 47 L	122·5	Top of mile-stone No. 123. On main road from Satara to Kolhapur.	2000·823	2001·673
122	BM.3 / 47 L	123·1	B.OM. On E. parapet of bridge, 48 chains S. of mile-stone No. 123.	1978·283	1979·126
123	BM.4 / 47 L	123·5	Top of mile-stone No. 124. On main road from Satara to Kolhapur.	1962·515	1963·351
124	BM 5 / 47 L	124·5	Top of mile-stone No. 125. On main road from Satara to Kolhapur.	1910·015	1910·831
125	BM.6 / 47 L	124·5	B.OM. On S. end of E. parapet of bridge, about 7 chains S. of mile-stone No. 125.	1903·610	1904·423
126	BM 7 / 47 L	125·4	Top of mile-stone No. 126. On main road from Satara to Kolhapur.	1843·020	1843·807
127	BM.8 / 47 L	125·8	B.OM. On S. end of W. parapet of bridge, about 31 chains S. of mile-stone No. 126.	1836·225	1837·011

Main-Line 29 (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
128	BM.9 / 47 L	126·8	G.T.S. ○ B.M. On W. parapet of bridge, 14 feet from S. end, and 30 chains S. of mile-stone No. 127.	1808·213	1808·987
129	BM.10 / 47 L	128·8	B.○M. On top of circular pillar of stone masonry, marked H.W.M. 1875 on right bank of Varna river about 100 links N.E. of main road from Satara to Kolhapur. The V on side of pillar was found to be 2·270 feet below bench-mark on top.	1795·786	1796·558
130		130·1	Destroyed.	1814·041	1814·821
131	BM.11 / 47 L	130·5	B.○M. On masonry block raised over a tomb W. of main road, and S.W. of Kini village.	1833·720	1834·510
132	BM.12 / 47 L	130·7	G.T.S. □ B.M. at Kini. Embedded about 6 inches below surface of ground, in compound of travellers' bungalow, 138 and 118 links respectively from N.W. and S.W. corners of bungalow, and 11 and 20 links respectively from N.E. and N.W. corners of stable.	1845·673	1846·469
133		131·2	Destroyed.	1846·770	1847·566
134		132·2	Destroyed.	1877·044	1877·855
135		133·2	Destroyed.	1946·868	1947·709
136	BM.13 / 47 L	133·8	B.○M. On N. end of W. parapet of bridge No. 17.	1959·577	1960·426
137		134·2	Destroyed.	1999·551	2000·417
138	BM 14 / 47 L	134·4	B.○M. On E. parapet of bridge No. 20.	2010·534	2011·405
139	BM.15 / 47 L	134·5	B.○M. On E. parapet of bridge No. 21.	2007·390	2008·259
140		135·2	Destroyed.	2016·253	2017·128
141		136·2	Destroyed.	1919·575	1920·408
142	BM.16 / 47 L	136·9	B.○M. On E. parapet of bridge No. 27, about 58 chains S. of mile-stone No. 137, Poona.	1914·051	1914·884
143	BM.17 / 47 L	137·8	B.○M. On E. parapet of bridge, about 53 chains S. of mile-stone No. 138, Poona.	1831·418	1832·216
144	BM.18 / 47 L	139·5	Top of mile-stone No. 139. On main road between Satara and Kolhapur by ford.	1777·618	1778·395
145	BM 19 / 47 L	140·5	Top of mile-stone No. 140. On main road between Satara and Kolhapur by ford.	1796·807	1797·592

Main-Line 29 (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
146	BM 20 / 47 L	141·4	B.OM. On W. parapet of bridge on main road at S. end of Barvada village.	1785·372	1786·154
147	BM.21 / 47 L	141·5	Top of mile-stone No. 141. On main road between Satara and Kolhapur by ford.	1785·524	1786·306
148	BM.22 / 47 L	142·1	G.T.S. ○ B.M. On W. end of middle step at S. entrance to Roman Catholic Chapel at Kolhapur.	1847·331	1848·142
149	BM.23 / 47 L	142·9	G.T.S. □ B.M. at Kolhapur. Embedded about 6 inches below ground level in compound of travellers' bungalow, 10 links W. of N. pillar of more northerly of two entrance gates, and 187 links N. of N.W. corner of bungalow.	1848·947	1849·759
150		143·2	Destroyed.	1857·094	1857·911
151		144·2	Destroyed.	1902·885	1903·722
152		145·2	Destroyed.	1971·134	1972·003
153		146·2	Destroyed.	2017·360	2018·249
154	BM 24 / 47 L	146·9	B.OM. On E. parapet of bridge No. 46, about 54 chains S. of mile-stone No. 148, Poona.	2040·843	2041·745
155		147·2	Destroyed.	2020·200	2021·093
156	BM.25 / 47 L	148·1	B.OM. On S. end of E. parapet of bridge, about 10 chains N.E. of Shirka village.	1942·748	1943·609
157		148·3	Destroyed.	1960·463	1961·331
158	BM.26 / 47 L	148·9	B.OM. On S. parapet of bridge No. 52.	1977·266	1978·142
159		149·3	Destroyed.	1949·991	1950·855
160	BM.27 / 47 L	149·4	B.OM. On W. parapet of bridge No. 54.	1923·716	1924·568
161	BM.28 / 47 L	150·0	B.OM. On W. end of S. parapet of bridge.	1940·644	1941·506
162		150·3	Destroyed.	1981·828	1982·708
163		151·3	Destroyed.	2046·378	2047·288
164	BM.29 / 47 L	151·4	B.OM. On E. parapet of bridge No. 62.	2032·490	2033·394
165	BM.30 / 47 L	152·0	B.OM. On E. parapet of bridge No. 63.	1943·722	1944·587
166		152·3	Destroyed.	1915·643	1916·496

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
167		153·3	Destroyed.	1855·728	1856·556
168	BM.31 / 47 L	153·4	G.T.S. □ B.M. at Kagal. Embedded about 6 inches below surface of ground in compound of travellers' bungalow, 6 and 39 feet respectively from N.W. and N.E. corners of bungalow, and 50 feet S.W. from S.W. corner of cook-house.	1832·250	1833·067
169	BM.32 / 47 L	153·4	G.T.S. ○ B.M. On N. end of lower step of entrance to travellers' bungalow at Kagal.	1831·040	1831·857
170	BM.33 / 47 L	153·7	B.○M. On S. end of E. parapet of bridge No. 8, about 10 chains N. of Kagal.	1804·931	1805·736
171	BM.34 / 47 L	154·1	G.T.S. ○ B.M. On plinth at S.E. corner of Aba Sahib's vada at Kagal town.	1826·772	1827·587
172		154·3	Destroyed.	1816·826	1817·636
173		155·3	Destroyed.	1772·202	1772·994
174	BM 35 / 47 L	155·6	G.T.S. ○ B.M. On N. end of E. parapet of bridge over Dudhganga river.	1778·827	1779·622
175	BM 36 / 47 L	157·0	G.T.S. ○ B.M. On W. parapet of bridge No. 1.	1838·334	1839·157
176	BM 37 / 47 L	158·2	B.○M. On N. end of E. parapet of bridge No. 6.	1846·155	1846·984
177	BM.38 / 47 L	160·8	B.○M. On E. parapet of bridge No. 12.	1861·609	1862·447
178	BM 39 / 47 L	161·8	B.○M. On N. end of E. parapet of bridge No. 1.	1815·469	1816·288
179	BM.40 / 47 L	162·6	G.T.S. □ B.M. at Saundalga. Embedded 9 inches below level of ground next to N.W. wall of a toll-house on road side, S. of junction of main road from Kolhapur and branch road from Kurundvad, 11 and 5 feet respectively from N. and W. corners of toll-house, 9 chains N. of mile-stone marked 162 Poona, 49 Belgaum, and 38 chains N. of bridge over Vedganga river. The letters B.M. are cut on N.W. face of wall of toll-house.	1785·733	1786·538
180	BM.41 / 47 L	163·1	G.T.S. ○ B.M. On coping at S.W. end of W. parapet of bridge No. 2 over Vedganga river.	1792·122	1792·932
181	BM.42 / 47 L	165·2	B.○M. On W. parapet of bridge No. 22.	1829·432	1830·260
182	BM.43 / 47 L	166·7	B.○M. On E. parapet of bridge No. 26.	1922·286	1923·161
183	BM.44 / 47 L	167·3	G.T.S. ○ B.M. On bottom step of N. entrance to dharmshala at Nipani, about 66 feet E. of main road from Kolhapur to Belgaum.	1975·071	1975·970

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
184	BM.45 / 47 L	167·5	G.T.S. □ B.M. at Niphani. Embedded about 6 inches below surface of ground in compound of travellers' bungalow, 5 feet E. from N.E. corner of building, and 55 feet W. from N.W. corner of cook-house.	1977·310	1978·209
185	BM.46 / 47 L	171·2	B.○M. On S. end of W. parapet of bridge No. 46.	2451·495	2452·614
186	BM.47 / 47 L	172·3	B.○M. On N. parapet of bridge No. 53.	2558·908	2560·076
187	BM.48 / 47 L	173·5	B.○M. On S.W. parapet of bridge No. 55.	2335·045	2336·114
188	BM.49 / 47 L	174·3	B.○M. On S.W. parapet of bridge No. 56.	2264·427	2265·464
189	BM.50 / 47 L	174·6	G.T.S. ○ B.M. On N. coping of E. parapet of bridge No. 4.	2229·945	2230·966
190	BM.51 / 47 L	175·0	B.○M. On W. parapet of bridge No. 58.	2238·479	2239·504
191	BM.52 / 47 L	176·2	G.T.S. □ B.M. Embedded about 6 inches below surface of ground next to toll-house alongside main road from Kolhapur to Belgaum, 11 and 5 feet respectively from N.E. and N.W. corners of toll-house, 26 feet W. of main road, and about 2 miles S. of Kanagla village. The letters B.M. are cut on N. wall of toll-house.	2180·878	2181·879
192	BM.53 / 47 L	177·4	B.○M. On S. end of E. parapet of bridge No. 64.	2232·622	2233·649
193	BM.54 / 47 L	177·6	G.T.S. ○ B.M. On coping at S. end of W. parapet of bridge No. 65.	2220·519	2221·541
194	BM.55 / 47 L	179·7	B.○M. On N. parapet of bridge No. 6 opposite mile-stone marked 179 Poona, 32 Belgaum.	2111·763	2112·737
195	BM.56 / 47 L	180·4	B.○M. On N. parapet of bridge No. 7.	2085·595	2086·559
196	BM.57 / 47 L	180·8	G.T.S. ○ B.M. On tomb W. of main road, and about 4 chains E. of Kamadnur gate at Sankeshwar.	2101·820	2102·791
197	BM.58 / 47 L	181·7	G.T.S. ○ B.M. On N. end of W. parapet of bridge No. 8.	2079·564	2080·525
198	BM.59 / 47 L	182·8	B.○M. On N. end of W. parapet of bridge on main road from Kolhapur to Belgaum, and about 9 chains S. of mile-stone marked 182 Poona.	2072·684	2073·644

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
199	BM.60 / 47 L	183·3	G.T.S. □ B.M. at Gotur. Embedded about 9 inches below surface of ground, in compound of travellers' bungalow, 18 and 9 feet respectively from N.W. and N.E. corners of cook-house, 77 feet E. of N.E. corner of bungalow, and 41 feet W. of branch road to Tasgaon. The letters B.M. are cut on N. face of wall of cook-house.	2119·243	2120·224
a / 199	BM.61 / 47 L	189·8	G.T.S. ○ B.M. On S.E. corner of plinth of Budanshah's masjid, about 5 chains N. of N. gate of Hukeri village.	2136·802	2137·791
1 / 199	BM.62 / 47 L	201·7	B.M. ↗ 207·53 Embedded on berme of canal at ridge crossing main road from Hukeri to Arbavi, about ¾ mile to S.E. of Malapur village. (Irrigation bench-mark No. 2 of the Gokak Canal).	2004·160	2005·088
200	BM.63 / 47 L	183·7	G.T.S. ○ B.M. On N. end of W. parapet of bridge No. 9 over Kapurodha nala, and about 20 chains S. of Gotur village.	2067·766	2068·726
201	BM.64 / 47 L	185·1	G.T.S. ○ B.M. On coping of northern straight end of W. parapet of bridge over Harankashi river, near Chikalgud village.	2055·255	2056·211
202	BM.65 / 47 L	190·3	G.T.S. □ B.M. at Hatarki. Embedded about 9 inches below surface of ground outside and next to N. enclosure wall of Virbhadra's temple, 33 and 122 feet respectively from N.W. and N.E. corners of said wall, and 66 feet E. of main road from Kolhapur to Belgaum. The letters B.M. are cut on N. wall.	2204·934	2205·966
203	BM.66 / 47 L	190·4	↗ On coping of N. end of E. parapet of bridge No. 11 over a big nala, about 10 chains S. of Hatarki village. (Irrigation bench-mark).	2204·484	2205·515
204	BM.67 / 47 L	191·5	B.OM. On W. parapet of bridge No. 92.	2294·188	2295·263
205	BM.68 / 47 L	194·6	G.T.S. ○ B.M. On coping of S. end of E. parapet of bridge No. 12 over Ghatprabha river near Sutkathi village.	2160·300	2161·317
206	BM.69 / 47 L	195·3	G.T.S. □ B.M. at Sutkathi. Embedded 6 inches below surface of ground in compound of travellers' bungalow, 35 and 19 feet respectively from N.W. and N.E. corners of bungalow, and 87 feet S.W. from S.W. corner of stable. The letters B.M. are cut on N. wall of bungalow.	2222·521	2223·570
207	BM.70 / 47 L	196·3	G.T.S. ○ B.M. On S. parapet of bridge No. 103.	2257·805	2258·870
208	BM.71 / 47 L	197·5	B.OM. On S. end of W. parapet of bridge No. 107.	2415·616	2416·758
209	BM 30 / 48 I	201·0	G.T.S. ○ B.M. On E. parapet of bridge No. 119.	2617·364	2618·606

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks			Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
210		BM.31 / 48 I	206·3	G.T.S. □ B.M. at Kakti. Embedded 6 inches below surface of ground, in vicinity of two tombs, a well and a solitary hamlet W. of main road from Kolhapur to Belgaum; 8 and 7 feet respectively from N.W. and N.E. corners of more northerly tomb, 27 feet N.E. of well to S. of tomb, and 77 feet E. of main road. The letters B.M. are cut on wall of tomb.	2432·073	2433·234
	a / 210	BM.32 / 48 I	212·6	G.T.S. ○ B.M. at Post Office. On verandah flooring, E. side of building about 7 feet to left of "Savings Bank" Window.	2448·905	2450·076
	1a / 210	BM.33 / 48 I	213·1	G.T.S. ○ B.M. On S. end of steps at main entrance to platform at Belgaum Railway Station	2454·020	2455·193
	1 / 210	BM.34 / 48 I	211·6	G.T.S. ○ B.M. On E. parapet of drain at junction of fort and station roads with road to Race Course.	2452·308	2453·480
	2 / 210	BM.35 / 48 I	211·8	G.T.S. ○ B.M. On S. parapet of drain at junction of road from Fort to Railway Station with road from Dharwar to Travellers' Bungalow.	2445·539	2446·708
	3 / 210	BM.36 / 48 I	212·2	B.⊕M. On plinth, to left of door leading into Bhimrao Patel's house in Bazar.	2448·052	2449·222
	4 / 210	BM.37 / 48 I	213·3	G.T.S. Standard Bench Mark 1907 at Belgaum. Situated in compound of St. Mary's church, 81 feet from S.E. corner of church, which bears 354° from bench-mark and is enclosed in a railed-off space 11 feet square.	2522·199	2523·405
211		BM.38 / 48 I	209·5	B.○M. On E. parapet of bridge No. 151.	2580·114	2581·351
	a / 211	BM.39 / 48 I	211·1	G.T.S. ○ B.M. at Belgaum Fort. On stone-slab protruding about 6 inches from wall of S. gate-way of fort. Above slab and on face of wall is inscribed F.G.B.M. Datum 100 feet above Datum.	2462·662	2463·844
212		BM.40 / 48 I	211·1	G.T.S. □ B.M. at Belgaum. Embedded about 6 inches below surface of ground, in compound of travellers' bungalow, 62 and 13 feet respectively from S.W. and N.W. corners of cook-house, 89 feet E. of steps at E. entrance to bungalow, and 66 feet S. of road leading to fort and tank. The letters B.M. are cut on wall of cook-house.	2472·343	2473·534
	a / 212	BM.41 / 48 I	213·0	G.T.S. ○ B.M. On E. parapet of bridge No. 176 over letters found marked in tar.	2579·612	2580·856
213		BM.42 / 48 I	211·4	↗ On stone embedded at N.W. end of police chauki No. 5 at Belgaum. (Irrigation bench-mark).	2477·750	2478·943
214		BM.43 / 48 I	217·6	G.T.S. □ B.M. at Bastad. Embedded about 6 inches below surface of ground, alongside main road from Belgaum to Dharwar; 7 feet W. of mile-stone No. 218, and 14 feet N. of main road.	2615·216	2616·481

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks		Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
215	BM.44 / 48 I	223·2	G.T.S. ○ B.M. On S. end of W. parapet of bridge No. 19 over a nadi.	2208·929	2209·999
216	BM.45 / 48 I	223·2	G.T.S. □ B.M. at Bagevadi. Embedded 6 inches below surface of ground, within enclosure of dharmshala; 29 and 23 feet respectively from N.W. and S.W. corners of dharmshala, 18 feet E. of main road, and 92 feet S.E. of bridge No. 19 over a nadi. The letters B.M. are cut on wall of dharmshala.	2200·284	2201·350
217	BM.46 / 48 I	228·1	G.T.S. □ B.M. at Hubli. Embedded about 6 inches below surface of ground, in compound of travellers' bungalow at Hubli (Mugat Khan); 18 feet from S.E. corner of boundary wall on which letters B.M. are cut, 46 feet from S. pillar of gate-way, 102 feet E. of cook-house, and 46 feet from S.E. corner of bungalow.	2163·222	2164.277
1/217	BM.47 / 48 I	229·3	↗ On sluice of Gadikari tank about 1 mile E. of Hubli (Mugat Khan) travellers' bungalow. (Irrigation bench-mark).	2131·683	2132·723
218	BM.48 / 48 I	228·8	B.○M. On W. parapet of bridge No. 239.	2105·107	2106·135
219	BM.49 / 48 I	229·4	B.○M. On W. parapet of bridge No. 240.	2084·098	2085·117
220	BM.50 / 48 I	231·6	G.T.S. ○ B.M. On E. parapet of bridge No. 8.	2188·875	2189·947
221	BM.51 / 48 I	234·6	G.T.S. □ B.M. at Hulikati. Embedded about 9 inches below surface of ground, within enclosure of chauki of Irrigation Department, 15 and 24 feet respectively from N.W. and S.W. corners of chauki, and 26 feet E. of main road.	2257·778	2258·888
222	BM.52 / 48 I	236·6	G.T.S. ○ B.M. On E. parapet of bridge, about 22 chains S. of mile-stone No. 237.	2337·465	2338·616
223	BM 53 / 48 I	238·9	G.T.S. ○ B.M. On W. parapet of bridge, about 51 chains S. of mile-stone No. 239.	2380·194	2381·369
224	BM 54 / 48 I	239·3	G.T.S. □ B.M. at Kittur. Embedded about 9 inches below surface of ground, within enclosure of and 30 and 54 feet respectively from S. and W. corners of dharmshala, 7 feet from N. and W. corners of out-house on N.W. face of wall of which the letters B.M. are cut.	2410·747	2411·937
225	BM.55 / 48 I	244·0	G.T.S. ○ B.M. On W. parapet of bridge, about 52 chains S. of mile-stone No. 244.	2260·211	2261·331

Main-Line 29. (Nira to Hubli).

Designation of Bench-marks			Distance from Nira	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
226		BM.56 / 48 I	245·0	G.T.S. □ B.M. at Tegur. Embedded about 9 inches below surface of ground, in compound of travellers' bungalow, next to its S.W. boundary wall; 87 and 33 feet respectively from S. and W. corners of bungalow, 33 feet S. of stable, and 73 feet from N.W. corner of wall. The letters B.M. have been cut on boundary wall.	2376·134	2377·314
227		BM.57 / 48 I	248·8	G.T.S. ○ B.M. On W. parapet of bridge, about 35 chains S. of mile-stone No. 249.	2252·700	2253·821
228		BM.58 / 48 I	250·8	G.T.S. ○ B.M. On N. parapet of bridge, about 36 chains S. of mile-stone No. 251 from Poona.	2270·685	2271·815
229		BM.59 / 48 I	253·0	G.T.S. □ B.M. at Mumigata. Embedded about 9 inches below surface of ground, within enclosure of and 13 and 36 feet respectively from N.E. and S.E. corners of dharmshala, and 84 feet S. of main road from Belgaum to Dharwar.	2300·727	2301·874
230		BM.60 / 48 I	254·7	G.T.S. ○ B.M. On S. parapet of bridge, about 29 chains E. of mile-stone No. 255.	2309·784	2310·936
231		BM.53 / 48 M	258·2	G.T.S. □ B.M. at Dharwar. Embedded about 9 inches below surface of ground, in compound of travellers' bungalow, 20 and 14 feet respectively from S.E. and S.W. corners of cook-house, 110 feet E. of steps leading to E. entrance of bungalow, and 4 chains S.W. of main road.	2384·005	2385·198
232		BM.54 / 48 M	264·6	G.T.S. □ B.M. at Rayapur. Embedded 9 inches below level of ground, close to a dilapidated temple next to a tank and W. of main road from Dharwar to Hubli; 19 and 18 feet respectively from N.W. and N.E. corners of temple, and 230 feet W. of main road.	2301·267	2302·423
233			269·5	Destroyed.	2057·022	2058·060
234			271·1	Destroyed.	2038·078	2039·108
	a / 234	BM.55 / 48 M	271·3	B.M. ↗ On upper surface of upper step of entrance to verandah of travellers' bungalow at Hubli.	2061·649	2062·692
235		BM.1 / 48 M	271·3	G.T.S. □ B.M. at travellers' bungalow, Hubli. Embedded in compound of bungalow, with upper surface of stone about 9 inches below ground level and enclosed by iron railings, 13 feet and 138° from S.W., and 9 feet and 240° from S.E. corners of southern projection of bungalow, 139 feet and 327½° from N.E. corner of stables, and 96 feet and 6° from S.W. corner of kitchen.	2059·286	2060·327

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.1 / 65 D	0·0	G.T.S. □ B.M. at Bezwada Travellers' Bungalow. On flag-stone in pavement of E. verandah, and between two doors of S. compartment.	65·844	65·874
2	BM 127 / 65 D	0·2	G.T.S. ○ B.M. On middle of N. parapet of bridge over a canal, 16 chains E. of travellers' bungalow at Bezwada.	65·268	65·297
3	BM 128 / 65 D	1·4	Top of mile-stone No. 1 from Bezwada.	61·901	61·929
4	BM.129 / 65 D	3·4	Top of mile-stone No. 3 from Bezwada.	60·233	60·260
5	BM 130 / 65 D	4·4	Top of mile-stone No. 4 from Bezwada.	55·842	55·867
6	BM 131 / 65 D	5·3	Top of mile-stone No. 5 from Bezwada.	53·111	53·135
7	BM 132 / 65 D	6·3	Top of mile-stone No. 6 from Bezwada.	50·992	51·015
8	BM.133 / 65 D	7·9	G.T.S. ○ B.M. Over 1st arch at S. end of E. parapet of bridge over a canal, and 32 chains S. of mile-stone No. 8 from Bezwada.	59·183	59·209
9	BM 134 / 65 D	8·3	Top of mile-stone No. 8 from Bezwada.	47·808	47·830
10	BM 135 / 65 D	9·3	Top of mile-stone No. 9 from Bezwada.	46·481	46·502
11	BM.136 / 65 D	10·3	Top of mile-stone No. 10 from Bezwada.	43·097	43·116
12	BM 137 / 65 D	11·4	Top of mile-stone No. 11 from Bezwada.	51·082	51·105
13	BM.138 / 65 D	12·4	Top of mile-stone No. 12 from Bezwada.	79·629	79·665
a/13	BM 139 / 65 D	13·6	G.T.S. □ B.M. at Gannavaram Travellers' Bungalow. Embedded in a block of masonry 2 feet cube, flush with terrace floor of S. verandah.	86·261	86·300
14	BM.140 / 65 D	14·4	Top of mile-stone No. 14 from Bezwada.	65·467	65·496
15	BM 141 / 65 D	15·4	Top of mile-stone No. 15 from Bezwada.	74·073	74·106
16	BM.142 / 65 D	16·4	Top of mile-stone No. 16 from Bezwada.	68·172	68·202

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
17	BM.143 / 65 D	17·4	Top of mile-stone No. 17 from Bezwada.	58·332	58·358
18	BM.144 / 65 D	18·4	Top of mile-stone No. 18 from Bezwada.	48·119	48·140
19	BM.145 / 65 D	19·4	Top of mile-stone No. 19 from Bezwada.	49·913	49·935
20	BM.146 / 65 D	20·4	Top of mile-stone No. 20 from Bezwada.	51·933	51·956
21	BM.147 / 65 D	21·3	Top of mile-stone No. 21 from Bezwada.	52·774	52·798
22	BM.148 / 65 D	22·3	Top of mile-stone No. 22 from Bezwada.	54·792	54·816
23	BM.149 / 65 D	22·9	G.T.S. □ B.M. at Viravali. Embedded in a block of masonry 1½ feet cube, flush with surface of masonry platform, of Venu Gopalswami's temple.	69·265	69·296
24	BM.150 / 65 D	23·3	Top of mile-stone No. 23 from Bezwada.	54·856	54·880
25	BM.151 / 65 D	24·3	Top of mile-stone No. 24 from Bezwada.	56·359	56·384
26	BM.152 / 65 D	25·3	Top of mile-stone No. 25 from Bezwada.	59·810	59·837
27	BM.153 / 65 D	26·3	Top of mile-stone No. 26 from Bezwada.	65·445	65·474
28	BM.154 / 65 D	26·9	G.T.S. ○ B.M. On a boundary stone between Kistna and Ellore districts at cross roads from Bezwada to Ellore and Nuzvid to Masulipatam; marked E. on Ellore side, and K. on Kistna side.	62·713	62·741
29	BM.1 / 65 H	34·2	G.T.S. ○ B.M. On S. side of a masonry well situated to N.E. of Vatlur village.	53·978	54·002
30	BM.2 / 65 H	35·6	G.T.S. ○ B.M. On W. end of N. masonry parapet wall of an aqueduct on canal from Bezwada to Ellore.	43·186	43·205
31	BM.3 / 65 H	36·7	G.T.S. ○ B.M. On N. parapet wall of an aqueduct crossing Tammiler river.	42·198	42·216

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
32	BM.4 / 65 H	38·9	G.T.S. □ B.M. at Ellore Travellers' Bungalow. Embedded in a block of masonry 2½ feet cube, flush with terrace floor of verandah on N.W. side of bungalow.	44·034	44·053
33	BM.5 / 65 H	39·8	G.T.S. ○ B.M. On N. parapet of a culvert on main road from Ellore to Rajahmundry (Rajamahendravaram), 71 chains to N. of Ellore travellers' bungalow.	41·896	41·914
34	BM.6 / 65 H	41·1	Top of mile-stone No. 45 on Godavari canal to Ellore.	34·552	34·567
35	BM.7 / 65 H	42·0	G.T.S. □ B.○M. On a stone in front of mile-stone No. 44 on Godavari canal to Ellore.	32·959	32·973
36	BM.8 / 65 H	42·4	G.T.S. ○ B.M. On N. parapet of an aqueduct, 33 chains E. of mile-stone No. 44 on Godavari canal to Ellore.	35·038	35·053
37	BM 9 / 65 H	42·9	G.T.S. □ B.○M. On furlong-stone No. 1, W. of mile-stone No. 43 on Godavari canal to Ellore.	32·597	32·611
38	BM.10 / 65 H	43·9	G.T.S. ○ B.M. On N.E. wing of an aqueduct, 8 chains W. of mile-stone No. 42 on Godavari canal to Ellore.	34·801	34·816
39	BM.11 / 65 H	45·0	G.T.S. □ B ○M. On stone in front of mile-stone No. 41 on Godavari canal to Ellore.	33·650	33·665
40	BM.12 / 65 H	46·0	G.T.S. □ B.○M. On stone in front of mile-stone No. 40 on Godavari canal to Ellore.	31·963	31·977
41	BM.13 / 65 H	47·2	G.T.S. □ B.○M. On stone in front of mile-stone No. 39 on Godavari canal to Ellore.	33·426	33·440
42	BM 14 / 65 H	48·6	G.T.S. □ B.○M. On stone in front of mile-stone No. 38 on Godavari canal to Ellore.	35·099	35·114
43	BM 15 / 65 H	49·3	G.T.S. ○ B.M. On W. end of N. parapet of an aqueduct, 19 chains W. of mile-stone No. 37 on Godavari canal to Ellore.	35·183	35·198
44	BM 16 / 65 H	50·6	G.T.S. □ B.○M. On stone in front of mile-stone No. 36 on Godavari canal to Ellore.	31·927	31·941
45	BM 17 / 65 H	51·8	G.T.S. □ B.M. at Bhimadol Travellers' Bungalow. Embedded in a block of masonry 2½ feet cube, flush with terrace floor of N. verandah.	43·737	43·756
46	BM.18 / 65 H	53·1	G.T.S. □ B.○M. On stone in front of mile-stone No. 34 on Godavari canal to Ellore.	31·389	31·402
47	BM.19 / 65 H	54·1	B.○M. On mile-stone No. 33 on Godavari canal to Ellore.	32·744	32·758
48	BM.20 / 65 H	55·1	G.T.S. □ B.○M. On stone in front of mile-stone No. 32 on Godavari canal to Ellore.	34·275	34·290

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks			Distance from Bezwada	Description of Bench-marks		Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
49		BM.21 / 65 H	56·1	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 31 on Godavari canal to Ellore.	31·638	31·652
50		BM.22 / 65 H	57·1		Top of mile-stone No. 30 on Godavari canal to Ellore.	32·926	32·940
51		BM.23 / 65 H	57·6	G.T.S. ○ B.M.	On W. wing of N. parapet of an aqueduct on Godavari canal to Ellore.	34·461	34·476
52		BM.24 / 65 H	59·1	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 28 on Godavari canal to Ellore.	32·576	32·590
53		BM.25 / 65 H	60·0	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 27 on Godavari canal to Ellore.	32·595	32·609
54		BM.26 / 65 H	61·1	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 26 on Godavari canal to Ellore.	35·948	35·964
	1/54	BM.27 / 65 H	65·5	B.⊙M.	On plinth on N. side of gate-way of Ramalinga Sheoswami's temple at Gollagudem village.	107·008	107·054
	2/54	BM 28 / 65 H	67·4		On upper mark-stone of Aupad, G.T. Survey Station, lat. 16° 53′ 3″·22, long. 81° 23′ 34″·71. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).	191·748	191·831
55		BM.29 / 65 H	62·0	G.T.S. ○ B.M.	On middle of N. parapet of an aqueduct on Godavari canal to Ellore, 5 chains W. of mile-stone No. 25.	36·796	36·812
56		BM.30 / 65 H	63·4	G.T.S. ○ B.M.	On middle of N. parapet of an aqueduct on Godavari canal to Ellore, 31 chains E. of mile-stone No. 24.	36·973	36·989
57		BM.31 / 65 H	64·0	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 23 on Godavari canal to Ellore.	33·921	33·936
58		BM.32 / 65 H	65·0	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 22 on Godavari canal to Ellore.	33·919	33·934
59		BM.33 / 65 H	65·8	B ⊙M.	On N.E. wing of a bridge over a branch canal, 16 chains W. of mile-stone No. 21 on Godavari canal to Ellore.	35·918	35·934
60		BM.34 / 65 H	66·0	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 21 on Godavari canal to Ellore.	35·389	35·404
61		BM.35 / 65 H	67·0	G.T.S. ○ B.M.	On N. parapet of an aqueduct on Godavari canal to Ellore, 1 chain E. of mile-stone No. 20.	38·044	38·060
62		BM.36 / 65 H	68·0	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 19 on Godavari canal to Ellore.	35·250	35·265
63		BM.37 / 65 H	68·5	G.T.S. ○ B.M.	On S. parapet of a sluice of a distributary, 38 chains W. of mile-stone No. 18.	36·651	36·667

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
64	BM.38 / 65 H	69·0	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 18 on Godavari canal to Ellore.	35·932	35·948
65	BM 39 / 65 H	69·8	G.T.S. □ B.M.	at Tadepalligudem, P.W.D. Rest House. Embedded in a block of masonry 2 feet cube, flush with terrace floor of E. verandah of bungalow.	42·173	42·191
66	BM 40 / 65 H	70·0	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 17 on Godavari canal to Ellore.	36·695	36·711
67	BM.41 / 65 H	70·9	G.T.S. ○ B.M.	On W. end of a causeway on N. bank of Godavari canal to Ellore, 7 chains W. of mile-stone No. 16.	37·406	37·422
68	BM 42 / 65 H	72·0	G.T.S. □ B.⊙M.	On stone in front of mile-stone No. 15 on Godavari canal to Ellore.	36·758	36·774
69	BM.43 / 65 H	73·0	G T S. □ B.⊙M.	On stone in front of mile-stone No. 14 on Godavari canal to Ellore.	38·737	38·754
70	BM.44 / 65 H	74·0	G.T.S. □ B.M.	On stone in front of mile-stone No. 13 on Godavari canal to Ellore. (P.W.D. bench-mark).	36·192	36·208
71	BM 45 / 65 H	74·9	G T.S. □ B M.	On stone in front of mile-stone No 12 on Godavari canal to Ellore. (P.W.D. bench-mark)	36·668	36·684
72	BM 46 / 65 H	75·9	G.T.S. □ B.M.	On stone in front of mile-stone No. 11 on Godavari canal to Ellore. (P.W.D. bench-mark).	37·512	37·528
73	BM 47 / 65 H	76·9	G T S. □ B.M.	On stone in front of mile-stone No. 10 on Godavari canal to Ellore. (P.W.D. bench-mark).	37·944	37·960
74	BM.48 / 65 H	77·9	G.T S. □ B.M.	On stone in front of mile-stone No. 9 on Godavari canal to Ellore. (P.W.D. bench-mark).	39·334	39·351
75	BM.49 / 65 H	78·9	G T S. □ B.M.	On stone in front of mile-stone No. 8 on Godavari canal to Ellore. (P.W.D. bench-mark).	42·349	42·367
76	BM 50 / 65 H	79·9	G.T S. □ B.M.	On stone in front of mile-stone No. 7 on Godavari canal to Ellore. (P.W D. bench-mark).	38·518	38·535
77	BM.51 / 65 H	80·7	G.T.S. □ B M.	at Chettipet. Embedded in a block of masonry 2 feet cube, flush with terrace floor of verandah of Public Works Department Rest House.	39·891	39·908
78	BM.52 / 65 H	80·9	G.T.S. □ B M.	On furlong-stone No. 1, S. of mile-stone No. 6 on Godavari canal to Ellore. (P.W.D. bench-mark).	37·189	37·205
79	BM.53 / 65 H	81·5	G.T.S. ○ B.M.	On N. end of a sluice on W. bank of Godavari canal to Ellore, ¾ of a mile N. of Settipet Rest House.	38·560	38·577

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
80	BM.54 / 65 H	82·9	G.T.S. □ B.M. On stone in front of mile-stone No. 4 on Godavari canal to Ellore. (P.W.D. bench-mark).	40·444	40·461
81	BM.55 / 65 H	83·9	G.T.S. □ B.M. On stone in front of mile-stone No. 3 on Godavari canal to Ellore. (P.W.D. bench-mark).	41·146	41·164
82	BM.56 / 65 H	84·9	G.T.S. □ B.M. On mile-stone No. 2 on Godavari canal to Ellore. (P.W.D. bench-mark).	43·371	43·389
83	BM.57 / 65 H	85·9	G.T.S. □ B.M. On mile-stone No. 1 on Godavari canal to Ellore. (P.W.D. bench-mark).	48·674	48·695
84	BM.58 / 65 H	86·9	G.T.S. ○ B.M. On N.E. parapet of lock on Godavari canal to Ellore, near steps on S.W. side of an adjoining sluice.	56·693	56·717
85	BM.59 / 65 H	87·2	Godavari Anicut. Iron post at W. end of anicut across first channel of Godavari from S. bank.	40·546	40·564
86	BM.60 / 65 H	88·1	Godavari Anicut. Iron stump at W. end of anicut across second channel of Godavari from S. bank.	40·804	40·822
87	BM.61 / 65 H	88·5	G.T.S. ○ B.M. On W. end of N. parapet of head sluice of main canal to Amalapuram.	58·863	58·888
88	BM.62 / 65 H	88·6	□ Marked with dammar on E. side of lock at head of Amalapuram canal. (P.W.D. bench-mark).	53·948	53·971
89	BM.63 / 65 H	90·7	□ at Dowlaishweram. Near E. end of N. parapet of lock. (P.W.D. bench-mark).	56·106	56·130
90	BM.64 / 65 H	90·8	G.T.S. □ B.M. at Dowlaishweram. Embedded in a block of masonry 3 feet square, and 1½ feet deep, flush with terrace floor of verandah of Public Works Department Rest House.	53·058	53·081
91	BM.65 / 65 H	91·8	Top of mile-stone No. 1 on Godavari canal to Cocanada.	46·827	46·847
92	BM.66 / 65 H	92·7	□ On stone in front of mile-stone No. 2 on Godavari canal to Cocanada. (P.W.D. bench-mark).	46·023	46·043
93	BM.67 / 65 H	93·7	□ On stone in front of mile-stone No. 3 on Godavari canal to Cocanada. (P.W.D. bench-mark).	45·411	45·430
94	BM.68 / 65 H	94·7	□ On stone in front of mile-stone No. 4 on Godavari canal to Cocanada. (P.W.D. bench-mark).	40·026	40·043
95	BM.69 / 65 H	94·9	Standard B.M. □ M.S.L. 43·40 On a stone slab set in masonry at bifurcation of Samalkot and Cocanada canals. (P.W.D. standard bench-mark).	43·075	43·093

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
96	BM.70 / 65 H	95·7	□ On stone in front of mile-stone No. 5 on Godavari canal to Cocanada. (P.W.D. bench-mark).	42·652	42·670
97	BM 71 / 65 H	96·7	G.T.S. ○ B.M. On stone in front of mile-stone No. 6 on Godavari canal to Cocanada.	41·633	41·651
98	BM.72 / 65 H	97·7	G.T.S. ○ B.M. On stone in front of mile-stone No. 7 on Godavari canal to Cocanada.	39·704	39·721
99	BM.73 / 65 H	98·7	Stone in front of mile-stone No. 8 on Godavari canal to Cocanada.	39·888	39·905
100	BM.74 / 65 H	99·7	G.T.S. ○ B.M. On stone in front of mile-stone No. 9 on Godavari canal to Cocanada.	40·190	40·207
101	BM.75 / 65 H	100·2	G.T.S. □ B.M. at Medapadu. Embedded in a block of masonry, 3 feet square and 4 feet deep on E. side of lascars' lines at canal lock, 29 feet from S. side of lock, 8 feet from N.E. and S.E. corners of easternmost lines.	37·848	37·864
102	BM 76 / 65 H	100·7	G.T.S. ○ B.M. On stone in front of mile-stone No. 10 on Godavari canal to Cocanada.	31·623	31·637
103	BM.77 / 65 H	101·7	G.T.S. ○ B.M. On stone in front of mile-stone No. 11 on Godavari canal to Cocanada.	32·257	32·271
104	BM.78 / 65 H	102·7	G.T.S. ○ B.M. On mile-stone No. 12 on Godavari canal to Cocanada.	29·724	29·737
105	BM.79 / 65 H	103·7	G.T S. ○ B.M. On mile-stone No. 13 on Godavari canal to Cocanada.	30·170	30·183
106	BM 80 / 65 H	104·7	□ On stone in front of mile-stone No. 14 on Godavari canal to Cocanada. (P.W.D. bench-mark).	28·943	28·955
107	BM.1 / 65 L	105·7	□ On stone in front of mile-stone No. 15 on Godavari canal to Cocanada. (P.W.D. bench-mark).	29·655	29·668
108	BM.2 / 65 L	106·7	□ On stone in front of mile-stone No. 16 on Godavari canal to Cocanada. (P.W.D. bench-mark).	25·411	25·422
109	BM.3 / 65 L	107·7	□ On stone in front of mile-stone No. 17 on Godavari canal to Cocanada. (P.W.D. bench-mark).	23·680	23·690
110	BM.4 / 65 L	108·7	□ On stone in front of mile-stone No. 18 on Godavari canal to Cocanada. (P.W.D. bench-mark).	23·570	23·580
111	BM.5 / 65 L	109·6	□ On stone in front of mile-stone No. 19 on Godavari canal to Cocanada. (P.W.D. bench-mark).	23·753	23·763
112	BM.6 / 65 L	110·6	□ On stone in front of mile-stone No. 20 on Godavari canal to Cocanada. (P.W.D. bench-mark).	20·656	20·665

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks			Distance from Bezwada	Description of Bench-marks		Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
113		BM.7 / 65 L	111·1	G.T.S. □ B.M.	at Chintapalli. Embedded in a block of masonry, 3 feet cube flush with verandah floor of Public Works Department Rest House.	19·087	19·095
114		BM.8 / 65 L	111·7	□	On stone in front of mile-stone No. 21 on Godavari canal to Cocanada. (P.W.D. bench-mark).	15·831	15·838
115		BM.9 / 65 L	112·7	B.○M.	On top of mile-stone No. 22 on Godavari canal to Cocanada.	15·757	15·764
116		BM.10 / 65 L	113·6	□	On stone in front of mile-stone No. 23 on Godavari canal to Cocanada. (P.W.D. bench-mark).	13·840	13·846
117		BM.11 / 65 L	114·6	□	On stone in front of mile-stone No. 24 on Godavari canal to Cocanada. (P.W.D. bench-mark).	14·513	14·519
118		BM.12 / 65 L	115·6	G.T.S. ○ B.M.	On stone in front of mile-stone No. 25 on Godavari canal to Cocanada.	13·785	13·791
119		BM.13 / 65 L	116·6	B.○M.	On stone in front of mile-stone No. 26 on Godavari canal to Cocanada.	10·648	10·653
120		BM.14 / 65 L	117·6	□	On stone in front of mile-stone No. 27 on Godavari canal to Cocanada. (P.W.D. bench-mark).	11·596	11·601
121		BM.15 / 65 L	118·6	□	On stone in front of mile-stone No. 28 on Godavari canal to Cocanada. (P.W.D. bench-mark).	9·717	9·721
	1/121	BM.16 / 65 L	121·4	G.T.S. ○ B.M.	On pavement under W. end of iron girder bridge on Godavari branch canal to Coringa.	9·771	9·775
	2/121	BM.17 / 65 L	124·4	G.T.S. ○ B.M.	On plinth of parapet of N.E. wing of an aqueduct on Godavari branch canal to Coringa, ½ mile S.W. of Gorripudi village.	6·919	6·922
	3/121	BM.18 / 65 L	125·1	On top of old pillar of Gorripudi, G T. Survey Station, lat. 16° 51′ 41″·49, long. 82° 11′ 56″·63. A secondary station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).		13·600	13·606
122		BM.19 / 65 L	119·9	GT.S. ○ B.M.	On S.W. end of Kovur Lock of Godavari canal to Cocanada.	11·124	11·129
123		BM.20 / 65 L	120·5	G.T.S. ○ B.M.	On mile-stone No. 30 on Godavari canal to Cocanada.	9·937	9·941
124		BM.21 / 65 L	121·5	B.○M.	On mile-stone No. 31 on Godavari canal to Cocanada.	7·652	7·655
125		BM.22 / 65 L	123·5	B.⌒M. 1882	at Cocanada. On S.W. corner of S. face of plinth of old light house, 10·5 feet above Marine Survey datum. (Marine Survey bench-mark).	6·449	6·452

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
126	BM 23 / 65 L	123·9	G.T.S. ○ B.M. B. at Cocanada. On stone in pavement at right-hand corner of entrance to jetty.	6·189	6·192
127	BM.24 / 65 L	124·0	G.T.S. □ B.M. A. at Cocanada. Embedded in a block of masonry 4 feet cube, and 9 inches above ground level, near S.E. corner of Marine Office, and 3 feet from compound wall.	6·239	6·242
128	BM.25 / 65 L	126·4	B.O.M. On top of mile-stone No. 37 from Dowlaishweram.	15·438	15·444
129	BM.26 / 65 L	127·4	B.O.M. On top of mile-stone No. 36 from Dowlaishweram.	14·099	14·105
130	BM 27 / 65 L	128·4	B.O.M. On top of mile-stone No. 35 from Dowlaishweram.	21·119	21·128
131	BM.1 / 65 K	129·4	B.O.M. On top of mile-stone No. 34 from Dowlaishweram.	14·171	14·177
132	BM 2 / 65 K	130·4	B.O.M. On top of mile-stone No. 33 from Dowlaishweram.	16·633	16·640
133	BM 3 / 65 K	130·5	G.T.S. ○ B.M. On N.E. end of canal lock at Venkatakistapuram.	19·223	19·231
134	BM 4 / 65 K	131·4	B.O.M. On top of mile-stone No. 32 from Dowlaishweram.	22·793	22·803
135	BM 5 / 65 K	132·4	B.O.M. On top of mile-stone No. 31 from Dowlaishweram.	26·676	26·687
136	BM.6 / 65 K	133·4	B.O.M. On top of mile-stone No. 30 from Dowlaishweram.	39·982	39·999
a / 136	BM.7 / 65 K	134·0	G.T.S. □ B.M. at Samalkot. Embedded in a block of masonry, flush with terrace floor of W. verandah of Local Funds School. It is one of the test bench-marks of the Tidal Station at Cocanada.	43·333	43·351
b / 136	BM.8 / 65 K	134·7	G.T.S. □ B.M. at Samalkot. Embedded in a block of masonry, between E. verandah and door of walled enclosure of Pithapuram Rajah's fort house, 44 feet from door at S.E. corner of the house, 7 feet from door of a walled enclosure adjoining the house, and 3 feet from its E. wall on which the letters B.M. are cut.	57·922	57·946
137	BM.9 / 65 K	135·6	G.T.S. □ B.M. Embedded in a block of masonry, behind a masonry seat near an iron-girder bridge on main road, 51 feet from B.M. No. 138, 140 feet from mile-stone No. 2 from Samalkot, and 3 feet from back of the masonry seat. It is one of the test bench-marks of the Tidal Station at Cocanada.	41·294	41·311

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
138	BM.10 / 65 K	135·6	B.O.M.	On S. end of S.W. wing of an iron-girder bridge, 2 chains N. of mile-stone No. 2 from Samalkot.	45·855	45·874
139	BM.11 / 65 K	136·5	B.O.M.	On top of mile-stone No. 3 from Samalkot.	45·216	45·235
140	BM.12 / 65 K	137·3	G.T.S. ○ B.M.	On S. end of W. parapet of a culvert, 15 chains S. of mile-stone No. 4 from Samalkot.	43·881	43·899
141	BM.13 / 65 K	138·5	B.O.M.	On top of mile-stone No. 5 from Samalkot.	45·493	45·512
142	BM.14 / 65 K	139·6	□	On stone on N. side of main road to Vizagapatam, and 5 chains E. of mile-stone No. 6 from Samalkot. (P.W. D. bench-mark No. 22).	44·020	44·038
143	BM.15 / 65 K	142·0	G.T.S. □ B.M.	at Pithapuram. Embedded in a block of masonry, flush with terrace floor of E. verandah of Local Funds Travellers' Bungalow.	46·497	46·516
144	BM.16 / 65 K	142·5	G.T.S. ○ B.M.	On top of mile-stone No. 9 from Samalkot.	49·635	49·656
145	BM.17 / 65 K	143·5	B.O.M.	On top of mile-stone No. 10 from Samalkot.	36·320	36·335
146	BM.18 / 65 K	144·5	B.O.M.	On top of mile-stone No. 11 from Samalkot.	28·865	28·877
147	BM.19 / 65 K	147·5	B.O.M.	On top of mile-stone No. 14 from Samalkot.	36·629	36·644
148	BM.20 / 65 K	148·5	B.O.M.	On top of mile-stone No. 15 from Samalkot.	45·336	45·355
149	BM.21 / 65 K	149·5	B.O.M.	On top of mile-stone No. 16 from Samalkot.	72·551	72·581
150	BM.22 / 65 K	150·5	B.O.M.	On top of mile-stone No. 17 from Samalkot.	81·057	81·091
151	BM.23 / 65 K	151·5	B.O.M.	On top of mile-stone No. 18 from Samalkot.	106·911	106·956
a / 151	BM.24 / 65 K	152·3	G.T.S. □ B.M.	at Kallipudi. Embedded in a block of masonry, flush with terrace floor of E. verandah of Local Funds Travellers' Bungalow.	140·590	140·649
152	BM.25 / 65 K	152·7	B.O.M.	On top of mile-stone No. 45 from Rajahmundry.	151·525	151·588
153	BM.26 / 65 K	153·8	B.O.M.	On top of mile-stone No. 46 from Rajahmundry.	134·529	134·585

Main-Line 30 (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
154	BM.27 / 65 K	154·8	B.OM. On top of mile-stone No. 47 from Rajahmundry.	117·771	117·820
155	BM 28 / 65 K	155·8	B.OM. On top of mile-stone No. 48 from Rajahmundry.	136·367	136·423
156	BM.29 / 65 K	156·8	B.OM. On top of mile-stone No. 49 from Rajahmundry.	93·227	93·265
157	BM.30 / 65 K	157·8	B.OM. On top of mile-stone No. 50 from Rajahmundry.	95·001	95·040
158	BM 31 / 65 K	158·8	B.OM. On top of mile-stone No. 51 from Rajahmundry.	95·730	95·779
159	BM.32 / 65 K	159·8	B.OM. On top of mile-stone No. 52 from Rajahmundry.	93·797	93·836
160	BM.33 / 65 K	160·8	B.OM. On top of mile-stone No. 53 from Rajahmundry.	151·411	151·473
161	BM 34 / 65 K	161·8	B.OM. On top of mile-stone No. 54 from Rajahmundry.	139·774	139·832
162	BM 35 / 65 K	162·8	B.OM. On top of mile-stone No. 55 from Rajahmundry.	125·743	125·795
163	BM.36 / 65 K	163·8	B.OM. On top of mile-stone No. 56 from Rajahmundry.	188·073	188·150
164	BM 37 / 65 K	164·8	B.OM. On top of mile-stone No. 57 from Rajahmundry.	246·071	246·171
165	BM 38 / 65 K	165·8	B.OM. On top of mile-stone No. 58 from Rajahmundry.	175·107	175·178
166	BM 39 / 65 K	166·4	B.OM. On top of furlong-stone No. $\frac{5}{58}$ from Rajahmundry.	101·203	101·244
$\frac{1}{166}$	BM.40 / 65 K	168·9	On top of circular pillar of Kappakonda, G.T. Survey Hill Station, lat. 17° 20′ 6″·41, long. 82° 28′ 35″·75. A principal station of Madras Meridional and Coast Series. (For full description *see* Synoptical Volume).	1098·331	1098·778
167	BM.41 / 65 K	166·8	B.OM. On top of mile-stone No. 59 from Rajahmundry.	97·811	97·851
168	BM.42 / 65 K	167·8	B.OM. On top of mile-stone No. 60 from Rajahmundry.	73·511	73·541
169	BM.43 / 65 K	169·6	B.OM. On top of mile-stone No. 62 from Rajahmundry.	57·211	57·234
170	BM.44 / 65 K	169·8	G.T.S. □ B.M. at Tuni. Embedded in a block of masonry on W. side of Local Funds travellers' bungalow, 23 feet from S.W. corner, 7 feet from N.E. corner, and 4 feet from W. wall of house on which letters B.M. are cut.	58·452	58·475

Main-Line 30 (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
171	BM.45 / 65 K	171·0	B.OM. On top of mile-stone No. 1 from Tuni.	55·753	55·776
172	BM.46 / 65 K	172·0	B.OM. On top of mile-stone No. 2 from Tuni.	53·265	53·286
173	BM.47 / 65 K	174·4	B.OM. On top of furlong-stone No. 3 between mile-stones Nos. 4 and 5 from Tuni.	31·523	31·536
174	BM.48 / 65 K	175·5	B.OM. On top of furlong-stone No. 4 between mile-stones Nos. 5 and 6 from Tuni.	32·931	32·944
175	BM.49 / 65 K	178·0	Top of mile-stone No. 8 from Tuni.	66·506	66·533
176	BM.50 / 65 K	179·1	B.OM. On top of furlong-stone No. 1 between mile-stones Nos. 9 and 10 from Tuni.	64·765	64·791
177	BM.51 / 65 K	180·0	B.OM. On top of mile-stone No. 10 from Tuni.	67·219	67·246
178	BM.52 / 65 K	181·0	B.OM. On top of mile-stone No. 11 from Tuni.	66·702	66·729
179	BM.53 / 65 K	181·7	G.T.S. □ B.M. at Nakkapilli. Embedded in a block of masonry, flush with verandah floor of Police Station.	61·213	61·238
180	BM.54 / 65 K	182·1	B.OM. On top of mile-stone No. 12 from Tuni.	45·083	45·101
181	BM.55 / 65 K	183·1	B.OM. On top of mile-stone No. 13 from Tuni.	66·678	66·705
182	BM.56 / 65 K	184·1	B.OM. On top of mile-stone No. 14 from Tuni.	52·649	52·670
183	BM.57 / 65 K	185·1	B.OM. On top of mile-stone No. 15 from Tuni.	28·510	28·522
184	BM.58 / 65 K	186·1	B.OM. On top of mile-stone No. 16 from Tuni.	35·469	35·483
185	BM.59 / 65 K	187·1	B.OM. On top of mile-stone No. 17 from Tuni.	44·010	44·028
186	BM.60 / 65 K	188·1	B.OM. On top of mile-stone No. 18 from Tuni.	41·406	41·422
187	BM.61 / 65 K	190·3	B.OM. On top of furlong-stone No. 1 between mile-stones Nos. 20 and 21 from Tuni.	41·840	41·857
188	BM.62 / 65 K	191·2	B.OM. On top of mile-stone No. 21 from Tuni.	46·614	46·633

Main-Line 30 (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
189	BM 63 / 65 K	192·2	B.O.M. On top of mile-stone No. 22 from Tuni.	80·137	80·169
190	BM.64 / 65 K	193·2	B.O.M. On top of mile-stone No. 23 from Tuni.	86·763	86·798
191	BM 65 / 65 K	194·2	B.O.M. On top of mile-stone No. 24 from Tuni.	38·466	38·481
192	BM.66 / 65 K	195·4	G.T.S. □ B.M. at Yellamanchili. Embedded in a block of masonry, flush with verandah floor of Police Station.	45·863	45·881
193	BM 67 / 65 K	196·2	B.O.M. On top of mile-stone No. 26 from Tuni.	33·779	33·792
194	BM 68 / 65 K	197·2	B.O.M. On top of mile-stone No. 27 from Tuni.	32·783	32·796
195	BM 69 / 65 K	198·3	B.O.M. On top of mile-stone No. 28 from Tuni.	45·282	45·300
196	BM 70 / 65 K	199·3	B.O.M. On top of mile-stone No. 29 from Tuni.	57·078	57·100
197	BM.71 / 65 K	200·3	B.O.M. On top of mile-stone No. 30 from Tuni.	68·115	68·142
198	BM 72 / 65 K	201·3	B.O.M. On top of mile-stone No. 31 from Tuni.	71·426	71·454
199	BM 73 / 65 K	202·3	B.O.M. On top of mile-stone No. 32 from Tuni.	66·445	66·471
200	BM 74 / 65 K	203·3	B.O.M. On top of mile-stone No. 33 from Tuni.	89·255	89·290
201	BM 75 / 65 K	204·3	B.O.M. On top of mile-stone No. 34 from Tuni.	114·637	114·682
202	BM.76 / 65 K	205·3	B.O.M. On top of mile-stone No. 35 from Tuni.	93·316	93·352
203	BM 77 / 65 K	206·3	B.O.M. On top of mile-stone No. 36 from Tuni.	88·260	88·294
204	BM 78 / 65 K	207·3	B.O.M. On top of mile-stone No. 37 from Tuni.	89·383	89·418
a 204	BM 79 / 65 K	207·5	G.T.S. □ B.M. at Kasimkota. Embedded flush with terrace floor of W. verandah of Local Funds travellers' bungalow.	82·540	82·572
205	BM 80 / 65 K	208·3	B.O.M. On top of mile-stone No. 38 from Tuni.	83·994	84·027

Main-Line 30 (Bezwada to Vizagapatam).

Designation of Bench-marks		Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
206	BM.81 / 65 K	209·3	B.O.M. On top of mile-stone No. 39 from Tuni.	84·874	84·907
207	BM.1 / 65 O	210·3	B.O.M. On top of mile-stone No. 40 from Tuni.	89·225	89·260
208	BM.2 / 65 O	211·3	B.O.M. On top of mile-stone No. 41 from Tuni.	77·419	77·449
209	BM.3 / 65 O	212·2	B.O.M. On top of mile-stone No. 18 from Vizagapatam.	73·464	73·492
210	BM.4 / 65 O	213·2	B.O.M. On top of mile-stone No. 17 from Vizagapatam.	82·197	82·229
211	BM.5 / 65 O	214·2	B.O.M. On top of mile-stone No. 16 from Vizagapatam.	106·734	106·776
212	BM 6 / 65 O	215·2	B.O.M. On top of mile-stone No. 15 from Vizagapatam.	107·950	107·992
213	BM 7 / 65 O	216·2	B.O.M. On top of mile-stone No. 14 from Vizagapatam.	129·562	129·612
214	BM.8 / 65 O	217·2	B.O.M. On top of mile-stone No. 13 from Vizagapatam.	223·585	223·672
215	BM.9 / 65 O	218·1	∧ On N. parapet of culvert, 9 chains W. of mile-stone No. 12 from Vizagapatam. (P.W.D. bench-mark).	167·330	167·395
216	BM.10 / 65 O	218·2	G.T.S. □ B.M. Embedded in a block of masonry resting on a rock *in situ* on S. side and opposite mile-stone No. 12 from Vizagapatam, and 64 feet from mile-stone. A pyramidal masonry pillar has been erected 8 feet to S. of bench-mark.	162·127	162·190
217	BM.11 / 65 O	218·2	B.O.M. On top of mile-stone No. 12 from Vizagapatam.	166·980	167·045
218	BM.12 / 65 O	219·2	G.T.S. □ B.M. at Aganampudi. Embedded in a block of masonry flush with floor of N. verandah of the late Tujyala Ramaswami Guru's bungalow. This is one of the test bench-marks of the Vizagapatam Tidal Station.	135·192	135·244
219	BM.13 / 65 O	219·2	B.O.M. On top of mile-stone No. 11 from Vizagapatam.	135·659	135·712
220	BM.14 / 65 O	220·3	B.O.M. On top of mile-stone No. 10 from Vizagapatam.	87·520	87·554
221	BM.15 / 65 O	220·3	G.T.S. □ B.M. Embedded to N. of and near mile-stone No. 10 from Vizagapatam, 49 feet from mile-stone, 81 feet from telegraph post No. 6 and 143 feet from telegraph post No. 7. A pyramidal pillar has been erected 8 feet to N. of bench-mark.	85·561	85·594

Main-Line 30. (Bezwada to Vizagapatam).

Designation of Bench-marks			Distance from Bezwada	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
222		BM.16 / 65 O	221·3	B.O.M. On top of mile-stone No. 9 from Vizagapatam.	58·864	58·887
223		BM.17 / 65 O	222·3	B.O.M. On top of mile-stone No. 8 from Vizagapatam.	53·067	53·088
224		BM.18 / 65 O	223·6	G.T.S. ○ B.M. On rock *in situ* on N. side of main road from Vizagapatam to Anakapalle, near telegraph post No. 6.	67·113	67·139
225		BM 19 / 65 O	224·3	B.O.M. On top of mile-stone No. 6 from Vizagapatam.	72·179	72·207
226		BM 20 / 65 O	225·2	B.O.M. On top of mile-stone No. 5 from Vizagapatam.	110·500	110·543
227		BM 21 / 65 O	226·3	B.O.M. On top of mile-stone No. 4 from Vizagapatam.	46·781	46·799
228		BM.22 / 65 O	226·8	G.T.S. ○ B.M. On rock *in situ* on N. side of main road from Vizagapatam to Anakapalle at furlong-stone No. 4 between mile-stones Nos. 4 and 3 from Vizagapatam.	56·090	56·112
229		BM.23 / 65 O	227·3	B.O.M. On top of mile-stone No. 3 from Vizagapatam.	38·410	38·425
	1 / 229	BM.24 / 65 O	229·3	On upper mark-stone of Yarada, G.T. Survey Hill Station, lat. 17° 40′ 5″·11, long. 83° 15′ 18″·06. A principal station of Bider Longitudinal Series. (For full description *see* Synoptical Volume).	1171·472	1171·926
230		BM.25 / 65 O	228·2	B.O.M. On top of mile-stone No. 2 from Vizagapatam.	32·509	32·522
231		BM.26 / 65 O	229·2	B.O.M. On top of mile-stone No. 1 from Vizagapatam.	5·450	5·452
232		BM 27 / 65 O	229·7	⋀ M.S.L. 2·52 On rock at base of Ross's hill, about 200 feet N.W. of jetty, and on N. side of main road from Vizagapatam to Anakapalle. (P.W.D. bench-mark).	2·362	2·363
233		BM.28 / 65 O	229·8	G.T.S. B. □ B.M. at Vizagapatam. Embedded in pavement of landing place, towards its W. end.	5·808	5·810
234		BM.29 / 65 O	229·9	G.T.S. C. □ B.M. at Vizagapatam. Embedded in pavement of verandah of Port Office, very nearly opposite E. door.	14·121	14·126
	a / 234	BM.30 / 65 O	230·1	G.T.S. A. □ B.M. at Vizagapatam. Consists of a large stone let into a block of masonry above ground, situated at base of Ross's hill, about 200 feet N.W. of jetty, and on N. side of main road from Vizagapatam to Anakapalle.	5·022	5·024

Main-Line 31*. (Kalyan to Kedgaon).

Designation of Bench-marks			Distance from Kalyan	Description of Bench-marks	Corrected Elevation †	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.1 / 47 E	0·0	G.T.S. □ B.M. at Kalyan Railway Station. Embedded about 6 inches below level of N. passenger platform, and 7 feet from kitchen wall. The following are distances and bearings of surrounding objects from bench-mark :—W. corner of Post Office 22 feet, 137°; N.E. corner of water tank 59 feet, 260°; W. corner of station house 79 feet, 73°; E. corner of porter's lodge 50 feet, 350°.	25·032	25·040
2		BM.2 / 47 E	0·1	G.T.S. ○ B.M. On E. end of N. platform at Kalyan Railway Station.	26·740	26·748
3		BM.3 / 47 E	1·0	G.T.S. ○ B.M. On W. end of N. parapet of bridge near telegraph post No. 34/3.	39·025	39·037
4		BM.4 / 47 E	6·3	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 39/10.	123·382	123·419
5		BM.5 / 47 E	7·7	G.T.S. ○ B.M. On coping of E. parapet of bridge, 20 chains N.W. of mile-post No. 41, and about 8 chains S. of level crossing No. 9.	92·152	92·180
6		BM.6 / 47 E	8·2	G.T.S. ○ B.M. On coping of W. parapet of bridge, about 44 chains N.W. of Badlapur Railway Station.	81·469	81·494
7		BM.7 / 47 E	8·7	G.T.S. ○ B.M. On coping of N. platform at Badlapur Railway Station.	69·666	69·687
	a/7	BM.8 / 47 E	10·5	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge near telegraph post No. 43/15.	65·462	65·482
8		BM.9 / 47 E	12·2	G.T.S. ○ B.M. On coping of E. parapet of bridge, about 23 chains S.E. of mile-post No. 45.	68·422	68·443
9		BM.10 / 47 E	13·1	G.T.S. ○ B.M. On E. end of S. parapet of bridge near telegraph post No. 46/4.	71·628	71·650
10		BM.11 / 47 E	14·3	⊙ On N. parapet of culvert near telegraph post No. 47/8.	106·298	106·331
11		BM.12 / 47 E	14·7	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 47/16.	121·231	121·269
12		BM.13 / 47 E	15·1	G.T.S. ○ B.M. On S. parapet of culvert, about 14 chains W. of Vangani Railway Station.	130·598	130·639
13		BM.14 / 47 E	18·1	G.T.S. ○ B.M. On E. parapet of bridge between telegraph posts Nos. 51/3 and 51/4.	128·309	128·349

* Additional bench-marks are about to be engraved along this line on solid rock.
† Deduced from the most recent levelling revision.

Main-Line 31. (Kalyan to Kedgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
14	BM.15 / 47 E	18·7	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 51/17.	118·080	118·117
15	BM.16 / 47 E	19·4	G.T.S. ○ B.M. On S.E. parapet of bridge near telegraph post No. 52/10.	117·304	117·341
a/15	BM.17 / 47 E	20·3	G.T.S. ○ B.M. On bed-rock, about 2 chains E. of B.M. No. 16.	131·282	131·323
16	BM.18 / 47 E	20·3	G.T.S. ○ B.M. On S.W. parapet of bridge, 7 chains N. of Neral Railway Station and near telegraph post No. 53/8.	128·477	128·517
17	BM 19 / 47 E	20·9	G.T.S. ○ B.M. On E. parapet of bridge, about 33 feet N. of mile-post No. 54.	146·294	146·340
18	BM.20 / 47 E	21·9	G.T.S. ○ B.M. On S. end of W. parapet of bridge near telegraph post No. 55/1.	168·588	168·641
a/18	BM.1 / 47 F	23·3	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 56/9.	166·715	166·768
19	BM.2 / 47 F	23·9	G.T.S. ○ B.M. On E. parapet of bridge near mile-post No. 57.	156·517	156·567
20	BM 3 / 47 F	26·0	G.T.S. ○ B.M. On E. parapet of bridge near telegraph post No. 59/2.	154·710	154·759
21	BM.4 / 47 F	28·1	G.T.S. ○ B.M. On W. parapet of S. abutment of bridge, about 15 chains S. of mile-post No. 61.	160·340	160·391
22	BM.5 / 47 F	28·9	G.T.S. □ B.M. at Karjat Railway Station. Embedded about 3 inches below ground level, within railway enclosure, 283 feet S.E. of S. Semaphore and 17 and 18 feet respectively from N.W. and S.W. corners of shunting foreman's house, on W. wall of which letters B M. are cut; 309 feet N. of masonry water-tank, from N.W. corner of which it bears 357° and 16 and 20 feet respectively from N.E. and S.E. corners of native brakesmen's house or Running Room.	169·583	169·637
a/22	BM.6 / 47 F	30·6	G.T.S. ○ B.M. On W. platform coping of Palasdhari Railway Station.	204·618	204·683
23	BM.7 / 47 F	30·9	○ On E. parapet of culvert, 4 chains S. of mile-post No. 64.	194·160	194·222
24	BM.8 / 47 F	35·9	B.○M. On E. parapet of culvert, about 200 yards N. of Lowaja village.	207·944	208·012

Main-Line 31. (Kalyan to Kedgaon).

Designation of Bench-marks			Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
25		BM.9 / 47 F	37·5	G.T.S. ○ B.M. On W. parapet of bridge, 17 chains N. of Kampuli Railway Station.	229·892	229·967
26		BM.10 / 47 F	37·7	G.T.S. ○ B.M. On platform coping at Kampuli Railway Station.	235·069	235·146
27		BM.11 / 47 F	37·7	G.T.S. □ B.M. at Kampuli Railway Station. Embedded 6 inches below ground level, 7 feet N.W. of well adjoining water-tank. The following are distances and bearings of surrounding objects from bench-mark:—N. corner of water-tank 27 feet, 127°; centre of water-column 8 feet; N. corner of new station house 215 feet, 175°; E. corner of goods-shed (old station house) 331 feet, 327°.	231·997	232·073
	a / 27	BM.12 / 47 F	40·6	G.T.S. ○ B.M. On right hand pillar at entrance to Kalyan Seth's well which is 50 feet S. of cart-track on Bhore Ghat, and about ½ mile on Khandala side of mile-stone No. 45.	1303·492	1303·918
28		BM.13 / 47 F	43·0	⊕ On E. corner of base of boundary pillar, Khandala, about 200 yards N.W. of church and 3 chains S. of mile-stone No. 42.	1778·915	1779·500
	a / 28	BM.14 / 47 F	43·3	G.T.S. ○ B.M. On N. end of lowest step, most northerly of three flights of stairs at Parsi dharmshala, Khandala.	1772·429	1773·012
29		BM.16 / 47 F	43·7	G.T.S. □ B.M. at Khandala Railway Station. Embedded about 5 feet below B.↓M. now cut on wall, 6 feet E. of E. end of gentlemen's lavatory, and 6 inches S. of a small wall, 2 feet high, which divides station platform from back premises.	1789·917	1790·506
30		BM.16 / 47 F	45·9	G.T.S. ○ B.M. On coping of down or N. platform at Lonavla Railway Station, 94 feet from S.W. corner of station building.	2036·985	2037·655
	a / 30	BM.17 / 47 F	46·3	G.T.S. ○ B.M. On N. parapet of bridge, about 30 chains E. of Lonavla Railway Station.	2034·800	2035·470
31		BM.18 / 47 F	48·2	G.T.S. ○ B.M. On N. end of E. abutment of bridge near telegraph post No. 81/12.	2023·476	2024·142
32		BM.19 / 47 F	50·3	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 83/13.	2022·109	2022·776
	a / 32	BM.20 / 47 F	51·0	G.T.S. ○ B.M. On verandah flooring of Karla Railway Station.	2021·168	2021·835
33		BM.21 / 47 F	52·0	G.T.S. ○ B.M. On E. abutment of bridge between telegraph posts Nos. 85/7 and 85/8.	2018·377	2019·041
34		BM.22 / 47 F	53·3	G.T.S. ○ B.M. On E. abutment of bridge near telegraph post No. 86/13.	2009·074	2009·735

Main-Line 31. (Kalyan to Kedgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
35	BM 23 / 47 F	54·5	G.T.S. ○ B.M. On S. parapet of bridge, 6 chains W. of mile-stone No. 88.	2002·803	2003·462
36	BM 24 / 47 F	55·9	G.T.S. □ B.M. at Khadkala Railway Station. Embedded flush with platform within railway enclosure, 4 feet E. of E. wall of station building, and 9 feet N. of palisade fence which divides platform of station from back premises.	2000·273	2000·929
37	BM 25 / 47 F	55·9	G.T.S. ○ B.M. On S. platform coping opposite pumping house at Khadkala Railway Station.	1998·709	1999·365
38	BM 26 / 47 F	57·6	G.T.S. ○ B.M. On base of mile-stone No. 91.	2017·291	2017·955
39	BM 27 / 47 F	58·9	G.T.S. ○ B.M. On W. side of road coping at level crossing No. 45, N. of railway line and near telegraph post No. 92/7.	2059·287	2059·964
40	BM.28 / 47 F	61·2	G.T.S. ○ B.M. On W. end of N. parapet of bridge near telegraph post No. 94/12.	2036·933	2037·605
a/40	BM 29 / 47 F	61·9	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 95/8.	2037·329	2038·001
41	BM 30 / 47 F	63·0	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 96/10.	2016·209	2016·874
a/41	BM 31 / 47 F	64·5	G.T.S. □ B.M. at Talegaon Railway Station. Embedded about ground level within railway enclosure, 30 feet S. of palisade fence which divides station platform from back premises, and 4 feet W. of W. wall of one of the out-offices which is at present occupied by station staff. The following are distances and bearings of surrounding objects from bench-mark:—N.E. corner of station building 46 feet, 13°; N.W. corner of booking clerk's house 12 feet, 68°; S.W. corner of same 16 feet, 207°; S.W. corner of 3rd class passengers' waiting hall 78 feet, 323°.	2024·558	2025·226
42	BM 32 / 47 F	65·4	G.T.S. ○ B.M. On N. end of W. abutment of bridge near telegraph post No. 98/20.	1981·363	1982·019
43	BM.33 / 47 F	67·4	BF. 27·05 CN. 24·05 TF. 14·50 ⊕ M On N.E. cap of bridge near telegraph post No. 100/19.	1919·057	1919·694
44	BM.34 / 47 F	69·7	B.○M. On base of ¼-mile pillar near telegraph post No. 103/6.	1981·573	1982·233

Main-Line 31. (Kalyan to Kedgaon).

Designation of Bench-marks			Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
45		BM.35 / 47 F	70·4	G.T.S. ○ B.M. On verandah flooring of Shelarvadi Railway Station.	1994·742	1995·406
46		BM 36 / 47 F	71·2	G.T.S. ○ B.M. On W. parapet of bridge near telegraph post No. 104/15 and 5 chains N. of level crossing No. 55.	1975·335	1975·995
47		BM.37 / 47 F	71·8	G.T.S. ○ B.M. On W. end of N. parapet of bridge near telegraph post No. 105/6.	1956·264	1956·917
48		BM.38 / 47 F	72·3	B.○M. On base of ¾-mile pillar near telegraph post No. 105/17.	1935·952	1936·599
49		BM.39 / 47 F	75·4	G.T.S. ○ B.M. On S.E. end of platform coping at Chinchvad Railway Station.	1875·036	1875·666
	a/49	BM.40 / 47 F	75·5	G.T.S. □ B.M. at Chinchvad Railway Station. Embedded 6 inches below ground level within railway enclosure, 95 feet W. of Government telegraph post No. 108/19, 78 feet from W. corner of station building, 63 feet from front return corner of station palisade fence, and 91 feet from back return corner of same fence. Centre of station well, about 4 chains distant, bears 305° from bench-mark.	1870·829	1871·458
50		BM.41 / 47 F	76·3	G.T.S. ○ B.M. On S.W. parapet of bridge between telegraph posts Nos. 109/16 and 109/17.	1844·045	1844·665
51		BM.42 / 47 F	78·1	G.T.S. ○ B.M. On N.E. parapet of bridge near telegraph post No. 111/12.	1834·395	1835·013
52		BM.43 / 47 F	80·3	G.T.S. ○ B.M. On platform coping opposite telegraph post No. 113/17. (Meakin and Co's siding at Dapuri).	1828·273	1828·895
	a/52	BM.44 / 47 F	81·7	G.T.S. □ B.M. at Kirkee Railway Station. Embedded 6 inches below ground level, within railway enclosure, 26 feet N.E. of palisade fence which separates station platform from back premises, 4 feet S.W. of wall which forms boundary of railway premises and 7 feet S. of S.E. pillar of gate which is the main entrance to station on its N.E. side. S.E. corner of station building distant 39 feet bears 285°, N.E. corner of waiting shed is 12 feet distant, and N.W. corner of goods-shed distant 145 feet bears 151° from bench-mark.	1836·544	1837·169
	1a/52	BM.45 / 47 F	82·3	G.T.S. Standard Bench Mark 1906 at Kirkee. Situated in All Saints Church compound S. of E. end of church, and 12 feet N. of S. compound wall, 150 feet from S.W. corner of church (extension for organ) and 131 feet from S.E. end. It is 80 feet S. of and in direct distance from window in octagonal vestry on S. face of building near its E. end.	1854·179	1854·809

Main-Line 31. (Kalyan to Kedgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
53	BM 46 / 47 F	82·4	G.T.S. ○ B.M.	On W. parapet of bridge near telegraph post No. 115/21.	1833·223	1833·848
54	BM.47 / 47 F	83·4	G.T.S. ○ B.M.	On E. parapet of bridge near telegraph post No. 116/20.	1804·407	1805·022
55	BM 48 / 47 F	84·7	G.T.S. ○ B.M.	On E. end of N. parapet of bridge across Mutha river.	1806·111	1806·729
56	BM 49 / 47 F	85·4	G.T.S. ○ B.M.	On platform coping up or S. line, 40 feet W. of S.W. corner of gentlemen's lavatory at Poona Railway Station.	1820·333	1820·955
a/56	BM 50 / 47 F	85·7	G.T.S. ○ B.M.	On E. or front verandah under N. window of Subarban Municipal Office, Poona.	1822·144	1822·767
57	BM.51 / 47 F	86·1	G.T.S. ○ B.M.	On verandah flooring, E. face, under the "Registered Article" window of General Post Office, Poona.	1842·262	1842·894
58	BM 52 / 47 F	86·8	G.T.S. ○ B.M.	On N. end of 2nd step from bottom at W. side of reservoir near old water-works tower, opposite the Arsenal, Poona.	1881·678	1882·324
1/58	BM 53 / 47 F	87·0	G.T.S. Standard Bench Mark 1906	at Poona. Situated in compound of Commanding Royal Engineer's Office, S.W. of S.W. extension of same, 57 feet from S.W. corner of above mentioned extension, 64 feet from S.E. end of same, bearing 57° from bench-mark, and 176 feet from S corner of building.	1866·687	1867·327
59	BM.54 / 47 F	87·7	G.T.S. ○ B.M.	On lowest step at W. entrance to St. Mary's Church, Poona.	1908·605	1909·260
a/59	BM.55 / 47 F	87·7	G.T.S. Standard Bench Mark 1906	at Poona. Situated in compound of St. Mary's Church and N.E. of it, 26 feet from N.E. corner of portico on N. side of building which bears 284° from bench-mark, 38 feet from N. corner of E end and 45 feet from angle formed by transept and that end of church.	1904·450	1905·103
b/59	BM.56 / 47 F	88·2	G.T.S. ○ B.M.	On S. parapet of bridge, about 21 chains E. of Church of Scotland and 4 chains E. of mile-stone No. 2 from Poona on Sholapur road.	1909·935	1910·590
c/59	BM 57 / 47 F	88·9	G.T.S. ○ B.M.	On N. parapet of bridge, 22 chains W. of mile-stone No. 3 on main road from Poona to Sholapur and about 2 chains from Octroi Post.	1886·603	1887·250
60	BM.58 / 47 F	90·7	G.T.S. ○ B.M.	On N. parapet of bridge, 200 yards W. of Hadapsar village on main road from Poona to Sholapur.	1860·955	1861·595

Main-Line 31. (Kalyan to Kedgaon).

Designation of Bench-marks			Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/60	BM.59/47 F	91·2	G.T.S ○ B.M. On N. parapet of bridge across Landaori nala, 5 chains E. of Hadapsar village on main road from Poona to Sholapur.	1862·996	1863·637
61		BM.60/47 F	92·4	G.T.S. ○ B.M. On N. parapet of bridge across Mutha canal, 13 chains E. of mile-stone No. 6 on main road from Poona to Sholapur.	1865·520	1866·162
62		BM.61/47 F	94·9	G.T.S. ○ B.M. On E. end of N. parapet of bridge, 26 chains W. of mile-stone No. 9 on main road from Poona to Sholapur.	1808·578	1809·200
63		BM.120/47 J	97·2	G.T.S. ○ B.M. On W. end of S. parapet of bridge near mile-stone No. 11 on main road from Poona to Sholapur.	1763·658	1764·265
64		BM.121/47 J	98·4	G.T.S. ○ B.M. On W. end of N. parapet of bridge near telegraph post No. 130/18.	1802·920	1803·540
65		BM.122/47 J	100·4	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 132/17.	1801·294	1801·914
	a/65	BM.123/47 J	100·4	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 132/17.	1801·628	1802·248
	b/65	BM.124/47 J	101·5	G.T.S. ○ B.M. On E. end of N. parapet of bridge near mile-post No. 134.	1796·314	1796·932
66		BM.125/47 J	102·4	G.T.S. ○ B.M. On N. parapet of bridge between telegraph posts Nos. 134/18 and 134/19.	1795·948	1796·566
67		BM.126/47 J	104·3	G.T.S. □ B.M. at Uruli Railway Station. Embedded about 9 inches below ground level within railway enclosure, 6 feet E. of well which is about 110 yards N.W. of station building, and 14 feet S. of wire fencing which forms N. boundary of station yard. The letters B.M. are cut on side of well nearest bench-mark. The following are distances and bearings of surrounding objects from bench-mark :—S.E. corner of water tank 56 feet, 243°; N.W. corner of station house 321 feet, 108°.	1800·154	1800·773
68		BM.127/47 J	104·5	G.T.S. ○ B.M. On W. end of N. parapet of bridge at mile-post No. 137.	1802·876	1803·496
69			105·6	Destroyed.	1803·756	1804·377
70		BM.128/47 J	106·8	G.T.S. ○ B.M. On E. end of N. parapet of bridge near telegraph post No. 139/5.	1808·890	1809·512

Main-Line 31. (Kalyan to Kedgaon).

Designation of Bench-marks			Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
71		BM.129 / 47 J	108 5	G.T.S. ○ B.M. On W. end of N. parapet of bridge near mile-post No. 141.	1804·623	1805·244
72		BM.130 / 47 J	110·7	G.T.S. ○ B.M. On E. end of N. parapet of bridge near telegraph post No. 143/4.	1825·275	1825·903
73		BM.131 / 47 J	111·0	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 143/11.	1820·548	1821·174
	a/73	BM.132 / 47 J	111·4	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 143/18.	1814·679	1815·303
	b/73	BM 133 / 47 J	112·3	G.T.S. ○ B.M. On verandah of station house at Yevat Railway Station.	1821·166	1821·792
74		BM.134 / 47 J	112·3	G.T.S. ○ B.M. On W. end of S. parapet of brdge near telegraph post No. 144/18.	1821·460	1822·086
75		BM 135 / 47 J	112·9	G.T.S. ○ B.M. On S. parapet of bridge between telegraph posts Nos. 145/7 and 145/8.	1809·733	1810·356
76		BM 136 / 47 J	113·5	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 146/1.	1817·807	1818·432
77		BM 137 / 47 J	115·3	G.T.S. ○ B.M. On S. parapet of bridge, 15 chains W. of mile-post No. 148.	1836·768	1837·400
78		BM 138 / 47 J	115·5	G.T.S. ○ B.M. On W. end of N. parapet of bridge near mile-post No. 148.	1836·470	1837·102
	a/78	BM 139 / 47 J	117·0	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 149/8.	1829·578	1830·208
	b/78	BM 140 / 47 J	118·4	G.T.S. ○ B.M. On W. end of S. parapet of bridge near telegraph post No. 150/19.	1794·121	1794·738
79		BM.141 / 47 J	119·6	G.T.S. ○ B.M. On N. parapet of bridge near telegraph post No. 152/3.	1785·906	1786·520
80		BM.1 / 47 J	120·0	G.T.S. □ B.M. at Kedgaon Railway Station. Embedded about 6 inches below ground, within railway enclosure, 73 feet S. of back return corner of palisade fence at W. end of station building, and 71 feet from S.W. corner of station master's quarters. The following are distances and bearings of surrounding objects from bench-mark :—S.W. corner of water-tank 205 feet, 301°; N.W. corner, station master's house 68 feet, 91°; N.E. corner, porter's house 5 feet, 157°.	1775·857	1776·468

Main-Line 32. (Bombay to Kalyan).

Designation of Bench-marks			Distance from Bombay	Description of Bench-marks	Corrected Elevation*	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.1 / 47 B	0·0	G.T.S. ○ B.M. On bottom step on N. side of main entrance to the Town Hall at Bombay. It is a few inches S. of iron railing and immediately above arrow head which was the original bench-mark.	19·737	19·743
	1/1	BM.2 / 47 B	0·3	Standard bench-mark at P.W.D. Secretariat Buildings, Bombay. The following inscription has been cut on one face of block :—The top surface of this stone is 19·773 feet above mean level of sea as determined by Major A. W. Baird, R.E., in charge Tidal and Levelling Operations, Survey of India, from observations with a self-registering tide-gauge at Apollo Bandar, extending from January 1878 to January 1885.	19·724	19·730
	2/1	BM.3 / 47 B	0·4	G.T.S. □ B.M. On N. end of steps at S.E. corner of General Post Office, Bombay.	17·551	17·557
	2a/1	BM.4 / 47 B	0·4	G.T.S. □ B.M. On S. end of steps at S.E. corner of General Post Office, Bombay.	17·585	17·591
	2b/1	BM 5 / 47 B	0·6	G.T.S. □ B.M. On front step to N. or left-hand side of W. entrance to the University, Esplanade, Bombay.	16·185	16·190
	2c/1	BM.6 / 47 B	0·6	G.T.S. □ B.M. On front step to S. or right-hand side of W. entrance to the University, Esplanade, Bombay.	16·267	16·272
	3/1	BM 7 / 47 B	1·5	G.T.S. ○ B.M. On 2nd lowest step at N.E. end of sea-wall or "band" at junction of Beach and Colaba roads near Colaba Railway Station.	12·474	12·478
	4/1	BM.8 / 47 B	3·2	On the ⊙ on floor of Colaba, G.T. Survey Station, lat. 18° 53′ 48″·94, long. 72° 48′ 48″·55. A secondary station of Bombay Longitudinal Series. (For full description *see* Synoptical Volume).	33·857	33·868
	a/1	BM 9 / 47 B	0·7	G.T.S. □ B.M. at Apollo Bandar, Bombay. Cut on one of the stone flags forming pavement round circular well at N.E. corner of Bandar. It is a few inches N. of parapet wall. This point is the bench-mark of reference for determining value of zero of self-registering tide-gauge working at Apollo Bandar.	13·691	13·695
	b/1	BM.10 / 47 B	0·4	G.T.S. ○ B.M. at Scotch Kirk, Bombay. On 3rd step at S.E. end of St. Andrew's Church of Scotland near R.I.M. Dockyard.	19·073	19·079
	c/1	BM.11 / 47 B	1·7	G.T.S. □ B.M. at Prince's Dock, Bombay. On coping at S.W. corner of Dock close to a low wall surrounding two flights of stone steps.	10·676†	10·679†
2		BM.12 / 47 B	3·9	G.T.S. ⊕ B.M. On platform of E. over-bridge at Byculla Railway Station near booking office.	14·406	14·410

* Deduced from the most recent levelling revision.
† In terms of mean-sea-level at Prince's Dock, Bombay.

Main-Line 32. (Bombay to Kalyan).

Designation of Bench-marks		Distance from Bombay	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
$\frac{1}{2}$	BM.13 / 47 B	4·3	G.T.S. ○ B.M. On front step of Jewish Synagogue, Byculla.	15·231	15·236
$\frac{a}{2}$	BM.14 / 47 B	4·6	G.T.S. ○ B.M. On pavement at left hand side entrance to Victoria Museum.	19·629	19·635
3	BM.15 / 47 B	5·1	G.T.S. ○ B.M. On coping of drain on E side of E. passenger platform at Currey Road Railway Station.	8·666	8·669
$\frac{a}{3}$	BM.16 / 47 B	5·7	G.T.S. ○ B.M. On a block of masonry which supports iron railing W. of Parel Iron Works, 85 feet N. of telegraph post No. $\frac{4}{3}$.	10·265	10·268
$\frac{b}{3}$	BM 1 / 47 A	6·8	G.T.S. □ B.M. at Dadar Railway Station. Embedded about 18 inches below surface of ground within enclosure wall of railway premises, and 27 feet from N. post of S. signal cabin, 29 feet from E. post of same, and 29 feet from wall of Moslem Hotel. It is also about 5 feet S.W. of S.E. palisade fence of level crossing.	10·791	10·794
4	BM.2 / 47 A	6·9	B.○M. On S. end of W. platform above ramp at Dadar Railway Station.	14·510	14·515
5	BM 3 / 47 A	7·1	On upper mark-stone of Dadar, G.T. Survey Station, lat 19° 1′ 8″·92, long. 72° 50′ 41″·78. A secondary station of Bombay Island Survey, and lies between the lines of B B and C I. and G.I.P. railways. The centre pillar about 3 feet high, is built of stone and mortar and is isolated from surrounding platform which is of clods of earth.	11·576	11·580
6	BM.4 / 47 A	7·2	G.T.S. ○ B.M. On S.W. cap of bridge between telegraph posts Nos. $\frac{6}{14}$ and $\frac{6}{15}$.	12·469	12·473
7	BM.5 / 47 A	10·6	G.T.S. □ B.M. at Kurla Railway Station. Embedded about 9 inches below surface of ground within enclosure wall of station premises, 3 feet S. of S.W. corner of gatekeeper's lodge, S. of station and 37 feet N.E. of N. corner of N. pier of S. over-bridge. The letters B.M. are cut on sill of window.	9·835	9·838
8	BM.6 / 47 A	11·1	G.T.S. ○ B.M. at Kurla Railway Station. On platform coping between station over-bridge and building, and about ½ chain from former.	15·970	15·975
9	BM.7 / 47 A	11·9	G.T.S. ○ B.M. On N.W cap of bridge near telegraph post No. $\frac{10}{7}$.	11·852	11·856
10	BM 8 / 47 A	14·3	G.T.S. ○ B.M. On N.E. end of N.W. parapet of culvert near telegraph post No. $\frac{12}{17}$.	19·388	19·394

Main-Line 32. (Bombay to Kalyan).

Designation of Bench-marks			Distance from Bombay	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
11		BM.9 / 47 A	16·8	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge near telegraph post No. 15/6.	15·297	15·302
12		BM 10 / 47 A	17·1	G.T.S. ○ B.M. On coping of W. parapet of S. abutment of bridge near telegraph post No. 15/12.	21·169	21·175
	a/12	BM.11 / 47 A	19·7	G.T.S. ○ B.M. On N.W. cap of bridge near telegraph post No. 18/4.	18·373	18·379
13		BM.12 / 47 A	22·0	G.T.S. ○ B.M. On E. end of S. platform, at Thana Railway Station, and 20 feet from N.E. end of S. platform staircase to over-bridge.	25·852	25·860
	a/13	BM.13 / 47 A	22·0	G.T.S. □ B.M. at Thana Railway Station. Embedded about 18 inches below ground level, 7 feet N. of wooden palisade fence which separates railway premises from public road, 232 feet E. of N.E. corner of station building which bears 259° from bench-mark: N.W. corner of E. signal cabin bearing 121° from bench-mark is 98 feet distant, and bench-mark No. 13 is 214 feet W.S.W. of embedded mark. The E. end of wicket gate at E. end of platform near Thana E. cabin is 8 feet to S.	24·001	24·008
14		BM 14 / 47 A	22·6	G.T.S. ○ B.M. On N. parapet of E. bridge across Thana creek.	39·462	39·474
15		BM.15 / 47 A	23·3	G.T.S. ○ B.M. On S. cap of bridge near telegraph post No. 21/21.	17·210	17·215
16		BM.21 / 47 E	24·7	G.T.S. ○ B.M. On N.W. cap of bridge near telegraph post No. 23/7.	37·681	37·693
17		BM.22 / 47 E	25·3	G.T.S. ○ B.M. On S. parapet of bridge near telegraph post No. 23/19.	21·088	21·094
18		BM.23 / 47 E	26·6	G.T.S. ○ B.M. On N. end of E. parapet of bridge situated about 150 yards E. of Mumbra village.	23·637	23·644
19		BM.24 / 47 E	27·7	G.T.S. ○ B.M. On E. side of lowest step at entrance to Diva Railway Station.	17·964	17·969
20		BM.25 / 47 E	31·4	G.T.S. ○ B.M. On N. parapet of E. abutment of bridge, about 4 chains W. of mile-post No. 30.	35·850	35·861
	a/20	BM.26 / 47 E	32·5	G.T.S. ○ B.M. On N.W. cap of bridge, about 4 chains E. of mile-post No. 31.	25·773	25·781
21		BM.1 / 47 E	34·5	G.T.S. □ B.M. at Kalyan Railway Station. Embedded about 6 inches below level of N. passenger platform, and 7 feet from kitchen wall. The following are distances and bearings of surrounding objects from bench-mark:—W. corner of post office 22 feet, 137°; N.E. corner of water-tank 59 feet, 260°; W. corner of station house 79 feet, 73°; E. corner of porter's lodge 50 feet, 350°.	25·032	25·040

Main-Line 33*. (Kalyan to Nandgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM. 1 / 47 E	0·0	G.T.S. □ B.M. at Kalyan Railway Station. Embedded about 6 inches below level of N. passenger platform, and 7 feet from kitchen wall. The following are distances and bearings of surrounding objects from bench-mark :—W. corner of Post Office 22 feet, 137°; N E. corner of water-tank 59 feet, 260°; W. corner of station house 79 feet, 73°; E. corner of porter's lodge 50 feet, 350°.	25·032	25·040
2	BM 27 / 47 E	0·0	Rail opposite booking office at Kalyan Railway Station.	23·476	23·483
3		1·3	Destroyed.	37·026	37·037
4	BM.28 / 47 E	1·7	G.T.S. ○ B.M. On E. parapet of N. abutment of bridge over Ulhas river, about ¼ mile S. of mile-post No. 35.	37·264	37·275
5	BM 29 / 47 E	2·3	G.T.S. ○ B.M. On W. parapet of S. abutment of bridge near Wadoli village level crossing.	39·286	39·298
6	BM 30 / 47 E	2·9	G.T S. ○ B.M. On W. parapet of N. abutment of Wadoli bridge near mile-post No. 36.	53·054	53·070
7	BM 31 / 47 E	4·0	G.T.S. ○ B.M. On rock, 10 feet S. of mile-post No. 37.	43·981	43·994
8	BM.32 / 47 E	5·5	G.T.S. ○ B.M. On E. parapet of culvert, ½ mile S. of mile-post No. 38.	37·393	37·404
9	BM.33 / 47 E	6·8	Rail opposite booking office at Titvala Railway Station.	51·754	51·770
10		6·8	Destroyed.	53·006	53·022
11	BM 34 / 47 E	7·3	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge over Kalu river.	55·021	55·037
12	BM 35 / 47 E	10·1	G.T.S. ○ B.M. On E. parapet of N. abutment of bridge over Chacholi nala, 5 chains N. of mile-post No. 43.	58·891	58·908
13	BM 36 / 47 E	12·4	G.T S. ○ B.M. On E. parapet of N. abutment of bridge over Kalu river, near Kalboli village.	61·702	61·720
14	BM 37 / 47 E	13·0	G.T.S. ○ B.M. On W. parapet of S. abutment of bridge, about 4 chains S. of mile-post No. 46.	68·575	68·595
15	BM.38 / 47 E	14·4	G.T.S. ○ B.M. On W. parapet of N. abutment of bridge over Bhatsa river, ¼ mile N. of mile-post No. 47.	91·401	91·428
16	BM 39 / 47 E	15·7	G.T.S. ○ B.M. On W. parapet of N. abutment of first bridge from Vasind to Titvala, between mile-posts Nos. 48 and 49.	78·189	78·212
17		16·4	Destroyed.	101·174	101·203

* Additional bench-marks are about to be engraved along this line on solid rock.

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
18	BM.40 / 47 E	16·4	Rail opposite booking office at Vasind Railway Station.	99·265	99·294
19		16·6	Destroyed.	99·243	99·272
20		17·7	Destroyed.	134·311	134·350
21		18·7	Destroyed.	187·558	187·613
22		20·1	Destroyed.	246·210	246·281
23	BM.41 / 47 E	20·2	Rail opposite booking office at Shahapur Railway Station.	242·462	242·532
24		20·7	Destroyed.	239·076	239·145
25		22·9	Destroyed.	347·618	347·718
26		23·3	Destroyed.	369·425	369·531
27		23·8	Destroyed.	389·285	389·397
28		26·1	Destroyed.	476·990	477·126
29	BM.42 / 47 E	26·1	Rail opposite booking office at Atgaon Railway Station.	474·755	474·891
30		26·8	Destroyed.	482·535	482·673
31		28·3	Destroyed.	524·751	524·901
32		29·1	Destroyed.	566·168	566·329
33		30·1	Destroyed.	603·739	603·910
34		32·7	Destroyed.	704·603	704·802
35		32·8	Destroyed.	713·587	713·788
36		33·7	Destroyed.	749·380	749·591
37	BM.43 / 47 E	33·7	Rail opposite booking office at Khardi Railway Station.	747·977	748·188
38		34·2	Destroyed.	736·173	736·381
39		34·6	Destroyed.	718·180	718·382
40		36·3	Destroyed.	738·996	739·204
41		38·2	Destroyed.	828·742	828·975
42		38·8	Destroyed.	854·930	855·170
43		40·4	Destroyed.	879·419	879·666
44		41·3	Destroyed.	924·332	924·592

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
45	BM.44 / 47 E	42·0	G.T.S. □ B.M. at Kasara Railway Station. Embedded 6 inches below surface of station platform, near its S. extremity, 42 feet S. of S.E. corner of row of rooms on platform, 30 feet W. of E. edge of platform, 41 feet from S.E. corner of platform, and nearly opposite station sign-board at S. end of platform.	949·458	949·724
46	BM 45 / 47 E	42·5	G.T.S. ○ B.M. On lowest step of Kasara dharmshala, ¼ mile from mile-plate No. 74, on main road from Bombay to Nasik.	939·932	940·195
47	BM.46 / 47 E	43·4	G.T.S. ○ B.M. On N. parapet of bridge at mile-plate No. 75, on main road from Bombay to Nasik.	763·976	764·189
48	BM 47 / 47 E	43·6	G T.S. ○ B.M. On W. parapet of bridge, ¼ mile from mile-plate No. 75, on main road from Bombay to Nasik.	825·238	825·467
49		43·8	Destroyed.	864·564	864·804
50		44·3	Destroyed.	972·088	972·358
51		45·3	Destroyed.	967·114	967·382
52		47·4	Destroyed.	1113·261	1113·569
53		47·9	Destroyed.	1239·722	1240·064
54		48·2	Destroyed.	1310·786	1311·148
55		48·4	Destroyed.	1365·644	1366·021
56	BM.48 / 47 E	49·4	G.T.S. ○ B.M. On N. parapet of W. abutment of bridge No. 167 on main road from Bombay to Nasik.	1605·024	1605·469
57	BM.49 / 47 E	50·2	G.T.S. ○ B.M. On top of mile-stone No. 32 on main road from Bombay to Nasik.	1698·445	1698·915
58	BM.50 / 47 E	51·0	G.T.S. ○ B.M. On E. parapet of N. abutment of bridge No. 152 on main road from Bombay to Nasik.	1762·412	1762·900
59	BM.51 / 47 E	51·2	G.T.S. ○ B.M. On top of mile-stone No. 31 on main road from Bombay to Nasik.	1794·148	1794·645
60	BM.52 / 47 E	51·7	G.T.S. ○ B.M. On centre of W. parapet of bridge No. 149 on main road from Bombay to Nasik.	1876·783	1877·303
61	BM 53 / 47 E	53·0	G.T.S. ○ B.M. On N. parapet of W. abutment of bridge No. 141 on main road from Bombay to Nasik.	1921·209	1921·741
62	BM.54 / 47 E	53·2	G.T.S. ○ B.M. On top of mile-stone No. 29 on main road from Bombay to Nasik.	1918·328	1918·859

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
63	BM.55 / 47 E	54·2	G.T.S. □ B.M. at Igatpuri Railway Station. Embedded 6 inches below surface of ground, near N.W. end of station platform. The S.W. and N.W. corners of platform are 20 and 3 feet respectively from bench-mark, and station sign-board is between it and gentlemen's room.	1919·029	1919·561
64	BM.56 / 47 E	54·2	G.T.S. ○ B.M. On E. end of platform of Igatpuri Railway Station.	1922·092	1922·624
65	BM.57 / 47 E	55·3	G.T.S. ○ B.M. On E. parapet of bridge, about a furlong S. of railway mile-post No. 86.	1904·601	1905·127
66	BM.58 / 47 E	57·3	G.T.S. ○ B.M. On W. parapet of N. abutment of bridge, 1 furlong S. of mile-post No. 88.	1897·767	1898·291
67	BM.59 / 47 E	57·7	G.T.S. ○ B.M. On W. parapet of S. abutment of bridge, ¼ mile N. of mile-post No. 88.	1904·041	1904·565
68	BM.60 / 47 E	60·0	Rail opposite booking office at Ghoti Railway Station.	1894·540	1895·059
69	BM.61 / 47 E	60·0	G.T.S. □ B.M. at Ghoti Railway Station. Embedded 6 inches below surface of ground, near N. end of W. platform. The N.E. corner of station master's room is 45 feet to S.; E edge of platform 10 feet and N.E. corner of platform 132 feet from bench-mark.	1896·006	1896·526
70	BM.62 / 47 E	61·8	G.T.S. ○ B.M. On W. parapet of S. abutment of bridge between mile-posts Nos. 92 and 93.	1885·430	1885·945
71	BM.63 / 47 E	62·6	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge, 1 furlong S. of mile-post No. 93.	1886·488	1887·003
72	BM.64 / 47 E	63·5	G.T.S. ○ B.M. On W. parapet of bridge, 1 furlong N. of mile-post No. 94.	1888·964	1889·478
73	BM.65 / 47 E	66·2	G.T.S. ○ B.M. On E. parapet of N. abutment of bridge, 1 furlong S. of mile-post No. 97.	1969·099	1969·633
74	BM.66 / 47 E	67·9	G.T.S. ○ B.M. On E. parapet of N. abutment of bridge midway between mile-posts Nos. 98 and 99.	1887·349	1887·858
75	BM.67 / 47 E	68·7	G.T.S. ○ B.M. On E. parapet of N. abutment of bridge over Undwa river, between mile-posts Nos. 99 and 100.	1888·287	1888·795
76	BM.68 / 47 E	69·7	Rail opposite booking office at Bailgaon Railway Station.	1888·237	1888·745
77	BM.69 / 47 E	69·7	G.T.S. □ B.M. at Bailgaon Railway Station. Embedded 6 inches below surface, near S.E. end of N. platform of station, 74 feet from S.E. corner of booking office, 57 feet from S.E. corner of N. platform, and 9 feet from edge of platform.	1890·040	1890·547

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
78	BM.70 / 47 E	71·5	G.T.S. ○ B.M.	On E. parapet of N. abutment of bridge, about 6 chains N. of mile-post No. 102.	1861·519	1862·018
79	BM.71 / 47 E	73·3	G.T.S. ○ B.M.	On. N. parapet of culvert near mile-post No. 104.	1835·713	1836·205
80	BM.72 / 47 E	74·3	G.T.S. ○ B.M.	On N. parapet of E. abutment of bridge, 4 chains S. of mile-post No. 105.	1851·718	1852·212
81	BM.73 / 47 E	75·5	G.T.S. ○ B.M.	On E. parapet of N. abutment of bridge, 1 furlong N. of mile-post No. 106.	1857·762	1858·258
82	BM.74 / 47 E	76·9	G.T.S. ○ B.M.	On E. parapet of N. abutment of bridge over Garadi stream, midway between mile-posts Nos. 107 and 108.	1904·761	1905·268
83	BM.75 / 47 E	78·8	G.T.S. ○ B.M.	On E. parapet of N. abutment of bridge, 30 chains N. of mile-post No. 109.	1882·645	1883·144
84	BM.76 / 47 E	80·1	G.T.S. ○ B.M.	On E. parapet of N. abutment of bridge, ¼ mile S. of mile-post No. 111.	1843·275	1843·763
85	BM.77 / 47 E	82·1	G.T.S. □ B.M.	at Devlali Railway Station. Embedded in main down platform near S end of station building, about 10 inches below platform level, 47 feet and 7° from centre of lowest step of overbridge, 27 feet and 28° from S E. corner of station building, 46 feet and 165° from centre of entrance gate to platform, 10 feet from edge of platform and 3 feet from 3rd verandah post (from south). The letters B+M are cut on stone of paving.	1828·499*	1828·982*
1/85	BM 78 / 47 E	82·2	G.T.S. ○ B.M.	On stone flooring at S.E. corner of front verandah of Govt. telegraph office at Devlali.	1838·974	1839·459
2/85	BM 79 / 47 E	82·3	G.T.S. ○ B.M.	On stone flooring of front verandah of post office at Devlali, 10 and 24 feet respectively from N.W. and N.E. corners of main building.	1841·607	1842·093
3/85	BM.80 / 47 E	82·7	G.T.S. ○ B.M.	On stone flooring of N. front entrance verandah of Officers' Mess at Devlali, close to N. wall of main building and opposite steps.	1868·812	1869·305
4/85	BM.81 / 47 E	82·7	G.T.S. ○ B.M.	On stone flooring of W. or front verandah of Roman Catholic Chapel (block No. 18) at Devlali, opposite centre steps and close to wall of main building.	1870·210	1870·704
5/85	BM.82 / 47 E	82·8	G.T.S. ○ B.M.	On stone flooring of front or W. entrance verandah of Sergeants' Mess at Devlali, opposite central steps and close to wall of main building.	1856·327	1856·817
6/85	BM 83 / 47 E	82·8	G.T.S. ○ B.M.	On stone flooring of front verandah of block No. 6, coffee shop and games room at Devlali, opposite centre steps and close to wall of main building.	1857·204	1857·694

* Obtained from the old levelling of 1877-78. The levelling of 1906-07 showed that this bench-mark had sunk about 0·138 of a foot. The heights of the following bench-marks *viz.* 1/85 to 11/85 have been deduced from the revised values (1906-07) of bench-mark No. 85.

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks			Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	7/85	BM.84/47 E	82·8	G.T.S. ○ B.M. On stone flooring of front or S. verandah of writing room at Devlali, just under E. window and close to wall of main building.	1849·343	1849·831
	8/85	BM.85/47 E	82·9	G.T.S. ○ B.M. On stone flooring of front or E. verandah of block No. 5 at Devlali, close to wall of main building between 4th and 5th doors (from south) of portion used as reading room.	1855·329	1855·819
	9/85	BM.86/47 E	82·9	G.T.S. ○ B.M. On stone flooring of front or E. verandah of block No. 5 at Devlali, close to wall of main building between 4th and 5th doors (from north) of portion used as Royal Army Temperance Association Room.	1855·441	1855·931
	10/85	BM.87/47 E	83·0	G.T.S. Standard Bench Mark 1906 at Devlali. Situated close to Cantonment boundary pillar No. 12 to S. of Chaplain's quarters.	1894·466	1894·966
	11/85	BM.88/47 E	83·1	⊙ On top of Devlali Cantonment boundary pillar No. 12.	1895·094	1895·594
86		BM.89/47 E	82·1	Rail opposite booking office at Devlali Railway Station.	1826·529	1827·011
87		BM.90/47 E	83·6	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge, 17 chains N. of mile-post No. 114.	1828·267	1828·746
88		BM.91/47 E	84·7	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge over Waldi river, ¼ mile N. of mile-post No. 115.	1837·881	1838·359
89		BM.92/47 E	85·6	Rail opposite booking office at Nasik Railway Station.	1839·817	1840·294
90		BM.93/47 E	85·6	G.T.S. □ B.M. at Nasik Railway Station. Embedded 6 inches below surface of W. or main platform, almost immediately below passenger bridge. The N.E. corner of lamp-room is 56 feet, N.E. corner of flagged portion of platform 55 feet, E. edge of platform 15 feet, and its N.E. end 109 feet from bench-mark.	1841·073	1841·550
	1/90	BM.94/47 E	86·3	Top of mile-stone No. 5 on road from Nasik to Sinnar.	1825·444	1825·917
	2/90	BM.95/47 E	87·4	Top of mile-stone No. 6 on road from Nasik to Sinnar.	1794·805	1795·270
	3/90	BM.96/47 E	88·3	Top of mile-stone No. 7 on road from Nasik to Sinnar.	1783·951	1784·413
	4/90	BM.97/47 E	89·2	Top of mile-stone No. 8 on road from Nasik to Sinnar.	1823·891	1824·363

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
5/90	BM 98 / 47 E	90·1	Top of mile-stone No. 9 on road from Nasik to Sinnar.	1850·786	1851·265
6/90	BM 99 / 47 E	91·1	Top of mile-stone No. 10 on road from Nasik to Sinnar.	1910·119	1910·614
7/90	BM 100 / 47 E	92·1	Top of mile-stone No. 11 on road from Nasik to Sinnar.	1980·975	1981·488
8/90	BM.101 / 47 E	94·1	Top of mile-stone No. 13 on road from Nasik to Sinnar.	2117·269	2117·817
9/90	BM 102 / 47 E	96·0	B.O.M. On well at Malegaon village.	2351·527	2352·136
10/90	BM.103 / 47 E	97·4	Top of mile-stone No. 15 on road from Khervadi to Sinnar.	2330·335	2330·938
11/90	BM.1 / 47 I	99·2	On upper mark-stone of Sinnar G.T. Survey Station, lat 19° 53′ 15″·61, long. 74° 0′ 20″·31 A principal station of Singi Meridional Series. (For full description *see* Synoptical Volume).	2814·733	2815·462
91	BM.104 / 47 E	85·8	G.T.S. O B.M. On E. parapet of S abutment of bridge at level crossing No. 89 near Nasik Railway Station.	1840·002	1840·477
1/91	BM.105 / 47 E	90·2	G.T.S. O B.M. On E. parapet of N. abutment of bridge near toll-house at Nasik.	1898·349	1898·839
2/91	BM.106 / 47 E	90·5	G.T.S. O B.M. On lowest step of post office in Nasik town.	1913·077	1913·571
3/91	BM.107 / 47 E	91·4	O On step of door of Recorder's office in Nasik town.	1859·917	1860·397
92	BM 108 / 47 E	86·1	G.T.S. O B.M. On E. parapet of N. abutment of bridge, ¼ mile S. of mile-post No. 117.	1849·942	1850·419
93	BM 109 / 47 E	87·7	G.T.S. O B.M. On E. parapet of S. abutment of bridge, ¼ mile N. of mile-post No. 118.	1880·181	1880·664
94	BM.1 / 46 H	89·5	G.T S. O B.M. On E. parapet of N. abutment of bridge over Ganga river, ¼ mile N. of mile-post No. 120.	1836·813	1837·283
95	BM.2 / 46 H	90·2	G.T.S. O B M. On E. parapet of S. abutment of bridge, 11 chains S. of mile-post No. 121.	1861·039	1861·515
96	BM.3 / 46 H	92·6	G.T S. O B.M. On W. parapet of S. abutment of bridge, ¼ mile N. of mile-post No. 123.	1867·721	1868·197

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks			Distance from Kalyan		Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
97		BM.4 / 46 H	93·5	G.T.S. ○ B.M.	On E. parapet of N. abutment of bridge, 1 furlong N. of mile-post No. 124.	1859·105	1859·579
98		BM.5 / 46 H	96·6	G.T.S. ○ B.M.	On W. parapet of S. abutment of bridge, 1 furlong N. of mile-post No. 127.	1811·283	1811·743
99		BM.6 / 46 H	97·3	G.T.S. □ B.M.	at Khervadi Railway Station. Embedded about 6 inches below surface, near W. end of N. platform, 6 feet S.E. of E. post of station sign-board, 12 feet N. of S. edge of platform, and 42 feet W. of S.W. corner of station rooms.	1809·424	1809·883
	1 / 99	BM.7 / 46 H	98·1	G.T.S. ○ B.M.	On top of mile-stone No. 1 on road from Khervadi to Sikhera.	1784·000	1784·453
	2 / 99	BM.8 / 46 H	99·1	G.T.S. ○ B.M.	On top of mile-stone No. 2 on road from Khervadi to Sikhera.	1773·237	1773·687
	3 / 99	BM.1 / 46 L	100·6	⅄	Marked in red lead on temple wall corner, between two streets, outside town of Sikhera on Ganga river. (P.W.D. bench-mark).	1764·735	1765·183
	4 / 99	BM.2 / 46 L	100·7	G.T.S. ○ B.M.	On top of mile-stone No. 9 at Sikhera town.	1764·757	1765·205
	5 / 99	BM.3 / 46 L	103·0	G.T.S. ○ B.M.	On N.W. plinth of old gate-way at Singwa, 5 chains N. of village temple.	1759·275	1759·722
	6 / 99	BM.4 / 46 L	103·0	⅄	Marked in red lead on N.W. plinth of old gate-way at Singwa, 5 chains N. of village temple.	1758·830	1759·277
	7 / 99	BM.5 / 46 L	103·5	G.T.S. ○ B.M.	On P.W.D. bench-mark consisting of a boulder embedded in front of Gondegaon village on river Ganga, 66 feet from N.W. corner of building containing Maruti's images.	1757·747	1758·194
	8 / 99	BM.6 / 46 L	106·8	G.T.S. ○ B.M.	On stone in floor of Hanuman's temple outside Kotura village, 2 chains W. of gate called Ganga darwaza. The bench-mark is to N. of steps, near E. edge of verandah, and is identical with the × cut by Public Works Department.	1761·036	1761·483
	9 / 99	BM.7 / 46 L	108·3	G.T.S. ○ B.M.	On N.E. corner of platform, 3 feet above plinth of Mahadeo's temple outside Karargaon village on Ganga. This bench-mark is identical with P.W.D. mark.	1747·222	1747·666
	10 / 99	BM.8 / 46 L	108·5	G.T.S. ○ B.M.	On S.W. corner of tomb called Therga, adjoining Chapadgaon village, and between Chauri village and Ganga river.	1751·072	1751·517
	11 / 99	BM.9 / 46 L	111·0	⊕	On S.W. corner of pedestal of Maruti's "*in memoriam*" pillar in Manjargaon village, 2 chains S.E. of pakka road.	1746·266	1746·709

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks			Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
	12/99	BM.10/46 L	*miles* 111·7	P.W.D. ⊙ B.M. Embedded near junction of Ganga and Kedva rivers, between villages of Manjargaon and Khandgaon on pakka road, and about 3 inches below ground level. (P.W.D. bench-mark).	*feet* 1732·798	*feet* 1733·238
100		BM.9/46 H	97·3	Rail opposite booking office at Khervadi Railway Station.	1806·866	1807·325
101		BM.11/46 L	98·2	G.T.S. ○ B.M. On N. parapet of W. abutment of bridge 1 furlong W. of mile-post No. 129.	1807·320	1807·779
102		BM.12/46 L	100·2	G.T.S. ○ B.M. On W. parapet of S. abutment of culvert 1 furlong S. of mile-post No. 131.	1802·255	1802·711
103		BM.13/46 L	101·1	G.T.S. ○ B.M. On W. parapet of N. abutment of bridge over Bangan-ga river, between mile-posts Nos. 131 and 132.	1797·373	1797·828
104		BM 14/46 L	101·6	G.T.S. ○ B.M. On W. parapet of N. abutment of bridge, ¼ mile N. of mile-post No. 132.	1788·820	1789·273
	1/104	BM 15/46 L	104·2	G.T.S. ○ B.M. On archway over flight of steps of well, 22 yards W. of pakka road, and 1 mile from Sukhina village.	1843·846	1844·313
	2/104	BM.16/46 L	108·0	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge over Palkhed canal, about 1 furlong N. of mile-stone No. 14 from Nasik.	1916·666	1917·151
105		BM 17/46 L	102·6	G.T.S. ○ B.M. On W. parapet of S. abutment of bridge ¼ mile N. of mile-post No. 133.	1807·131	1807·588
106		BM.18/46 L	104·7	G.T.S. ○ B.M. On W. parapet of S. abutment of bridge over Kadva river, near Niphad Railway Station	1807·889	1808·345
107		BM 19/46 L	105·1	Rail opposite booking office at Niphad Railway Station.	1802·877	1803·331
108		BM.20/46 L	105·1	G.T.S. □ B.M. at Niphad Railway Station. Embedded about 6 inches below surface of main platform of station. The station semaphore is 90 feet S.W.; E. edge of platform 9 feet to E., and its N.E. corner 32 feet to N.E. of bench-mark.	1804·256	1804·711
109		BM.21/46 L	107·7	G.T.S. ○ B.M. On W. parapet of N. abutment of bridge over Wadali river, between mile-posts Nos. 138 and 139.	1831·554	1832·014
110		BM.22/46 L	108·6	G.T.S. ○ B.M. On W. end of N. parapet of open drain ¼ mile N. of mile-post No. 139.	1852·504	1852·969

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
111	BM.23 / 46 L	109·6	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge ½ mile N. of mile-post No. 140.	1862·419	1862·885
112	BM.24 / 46 L	111·3	G.T.S. ○ B.M. On W. parapet of N. abutment of bridge 20 feet N. of mile-post No. 142.	1912·094	1912·572
113	BM.25 / 46 L	114·0	G.T.S. ○ B.M. On S. parapet of E. abutment of bridge midway between mile-posts Nos. 144 and 145.	1943·361	1943·845
114	BM.26 / 46 L	115·5	G.T.S. □ B.M. at Lasalgaon Railway Station. Embedded in N.W. corner of S. platform, about 6 inches below surface. The N.W. corner of platform is 48 feet, its N. edge 9 feet, and N.W. corner of row of office rooms 85 feet from bench-mark.	1941·627	1942·109
115	BM.27 / 46 L	115·5	Rail opposite booking office at Lasalgaon Railway Station.	1939·356	1939·837
116	BM 28 / 46 L	116·0	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge over Shio river, between mile-posts Nos. 146 and 147.	1939·070	1939·551
117	BM.29 / 46 L	118·5	G.T.S. ○ B.M. On E. parapet of N. abutment of bridge ¼ mile N. of mile-post No. 149.	1942·655	1943·135
118	BM.30 / 46 L	121·9	G.T.S. ○ B.M. On N. abutment of culvert between mile-posts Nos. 152 and 153.	2023·374	2023·872
119	BM.31 / 46 L	124·3	G.T.S. ○ B.M. On E. parapet of N. abutment of culvert 3 chains S. of mile-post No. 155.	2104·062	2104·577
120	BM.32 / 46 L	126·5	G.T.S. ○ B.M. On S. parapet of W. abutment of bridge ¼ mile E. of mile-post No. 157.	2017·941	2018·433
121		128·6	Destroyed.	1956·123	1956·598
122	BM.33 / 46 L	130·9	Rail opposite booking office at Manmad Railway Station.	1897·232	1897·691
123	BM.34 / 46 L	131·0	G.T.S. □ B.M. at Manmad Railway Station. Embedded about 6 inches below surface of platform, 12 feet from its S. edge, 23 feet from S.W. corner of lamp room, and 86 feet from S.E. corner of row of office rooms.	1898·889	1899·349
124		134·2	Destroyed.	1834·749	1835·193
125	BM.35 / 46 L	136·3	G.T.S. ○ B.M. On S. parapet of E. abutment of bridge 4 chains N. of mile-post No. 167.	1800·089	1800·523

Main-Line 33. (Kalyan to Nandgaon).

Designation of Bench-marks		Distance from Kalyan	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
126	BM.36 / 46 L	136·6	G.T.S. ○ B.M. On S. parapet of bridge ¼ mile E. of mile-post No. 167.	1793·407	1793·839
127	BM.37 / 46 L	139·4	G.T.S. ○ B.M. On S. parapet of E. abutment of bridge 1 furlong E. of mile-post No. 170.	1762·882	1763·305
128	BM 38 / 46 L	140·2	G.T.S. ○ B.M. On S. parapet of culvert 4 chains W. of mile-post No. 171.	1748·557	1748·977
129	BM.39 / 46 L	142·4	G.T.S. ○ B.M. On S. parapet of W. abutment of bridge ¼ mile E. of mile-post No. 173.	1683·657	1684·059
130	BM.40 / 46 L	143·3	G.T.S. ○ B.M. On centre of N.E. parapet of bridge over Sheki river 1 furlong E. of mile-post No. 174.	1658·632	1659·029
131	BM.41 / 46 L	144·7	G.T.S. ○ B.M. On N. parapet of W. abutment of bridge midway between mile-posts Nos. 175 and 176.	1611·143	1611·528
132	BM 42 / 46 L	146·3	G.T.S. ○ B.M. On S. parapet, over easternmost span of bridge, 4 chains E. of mile-stone No. 177, and about ¼ mile W. of Nandgaon Railway Station.	1558·203	1558·574
133	BM 43 / 46 L	146·6	Rail opposite booking office at Nandgaon Railway Station.	1552·465	1552·834
134	BM.44 / 46 L	146·6	G.T.S. □ B.M. at Nandgaon Railway Station. Embedded near N. end of platform, 6 inches below its surface, 62 feet from N.E. corner, 11 feet from E. edge and 33 feet from N.E. corner of row of office rooms.	1554·007	1554·377

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.44 / 46 L	0·0	G.T.S. □ B.M. at Nandgaon Railway Station. Embedded near N. end of platform, 6 inches below its surface, 62 feet from N.E. corner, 11 feet from E. edge and 33 feet from N.E. corner of row of office rooms.	1554·007	1554·377
2		BM.42 / 46 L	0·3	G.T.S. ○ B.M. On S. parapet, over easternmost span of bridge, 4 chains E. of mile-stone No. 177, and about ¼ mile W. of Nandgaon Railway Station.	1558·203	1558·574
3		BM.45 / 46 L	2·6	G.T.S. ○ B.M. On S.E. buffer stone of E. parapet of culvert 2 miles from Nandgaon, on main road from Nandgaon to Malegaon.	1632·572	1632·957
4		BM.46 / 46 L	8·5	On top of boundary stone on E. side of road and on S. bank of stream, ¾ mile N. of Varkhari village.	1467·664	1468·008
5		BM.47 / 46 L	9·9	G.T.S. □ B.M. at Pada. Embedded 6 inches below surface of ground, 3 chains from village wall. The E. gate of village is 54 yards to W., and a pakka pillar is 7 feet to E. The main road from Nandgaon to Malegaon is a few feet W. of bench-mark.	1471·862	1472·205
6		BM.48 / 46 L	18·3	G.T.S. ○ B.M. On S. parapet of E. abutment of bridge at Chandanpur village, on main road, 1 mile S. of Malegaon.	1345·808	1346·112
7		BM.49 / 46 L	19·7	G.T.S. □ B.M. at Malegaon. Embedded 6 inches below surface of ground, near gate called Chandanpuri Darwaza. A pakka well is 73 feet to N.W., and a small building called Hanuman's temple, outside the town, is 67 feet to W.	1386·177	1386·489
8		BM.50 / 46 L	21·9	G.T.S. ○ B.M. On E. parapet of N. abutment of bridge, ¼ mile S. of mile-stone No. 25 on main road from Malegaon to Dhulia.	1404·083	1404·396
9		BM.51 / 46 L	22·9	G.T.S. ○ B.M. On parapet of bridge ¼ mile S. of mile-stone No. 26 on main road from Malegaon to Dhulia.	1482·632	1482·963
10		BM.52 / 46 L	25·1	G.T.S. ○ B.M. On E. parapet of bridge 3 chains S. of mile-stone No. 28, and ½ mile N. of Police chauki between mile-stones Nos. 27 and 28 on main road from Malegaon to Dhulia.	1519·124	1519·460
11		BM.53 / 46 L	27·2	G.T.S. □ B.M. at Chikhalvohol. Embedded on E. margin of road from Malegaon to Dhulia, immediately opposite mile-stone No. 30 and 23 yards therefrom: travellers' bungalow lies ½ mile to N.E. The surface of pillar is about 6 inches below level of ground.	1457·806	1458·127
12		BM.54 / 46 L	27·7	G.T.S. ○ B.M. On kerb-stone embedded at N.W. corner of travellers' bungalow at Chikhalvohol.	1440·451	1440·768

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
13		BM.55/46 L	28·3	G.T.S. ○ B.M. On centre of W. parapet of bridge 6 chains N. of mile-stone No. 31.	1402·410	1402·717
14		BM.56/46 L	29·3	G.T.S. B.M. On top of mile-stone No. 32.	1413·687	1413·997
15		BM.57/46 L	30·3	G.T.S. ○ B.M. On S.E. corner of plinth of mile-stone No. 33.	1399·315	1399·620
16		BM.58/46 L	31·3	G.T.S. B.M. On top of mile-stone No. 34.	1397·876	1398·181
17		BM.59/46 L	33·3	G.T.S. B.M. On top of mile-stone No. 36.	1391·113	1391·413
18		BM.60/46 L	34·3	G.T.S. ○ B.M. On S.E. corner of plinth of mile-stone No. 37.	1380·498	1380·795
19		BM.61/46 L	35·3	G.T.S. B.M. On top of mile-stone No. 38.	1295·441	1295·719
20		BM.62/46 L	36·3	G.T.S. ○ B.M. On top of pillar at S. end of W. parapet of bridge near mile-stone No. 39.	1267·147	1267·418
21		BM.63/46 L	37·3	G.T.S. B.M. On top of mile-stone No. 40.	1253·382	1253·650
22		BM.64/46 L	38·3	G.T.S. B.M. On top of mile-stone No. 41.	1270·208	1270·479
23		BM.65/46 L	38·9	○ On bottom step at E. entrance to S. wing of Arvi travellers' bungalow.	1292·132	1292·406
	1/23	BM.66/46 L	42·9	On upper mark-stone of Anakvadi, G.T. Survey Hill Station, lat. 20° 47′ 2″·38, long. 74° 41′ 42″·34. A principal station of Khanpisura Meridional Series. (For full description *see* Synoptical Volume).	2243·105	2243·581
24		BM.67/46 L	38·9	G.T.S. □ B.M. at Arvi Travellers' Bungalow. Embedded flush with verandah floor of S. wing of bungalow; 10 feet W. of steps facing E., and between two doorways of S. wing of bungalow.	1293·215	1293·489
25		BM.68/46 L	40·4	G.T.S. B.M. On top of mile-stone No. 43.	1342·055	1342·338
26		BM.69/46 L	42·5	G.T.S. B.M. On top of mile-stone No. 45.	1360·807	1361·091
27		BM.70/46 L	43·5	G.T.S. B.M. On top of mile-stone No. 46.	1198·327	1198·576
28		BM.71/46 L	44·7	G.T.S. ○ B.M. On N. end of W. parapet of bridge near S. entrance to Laling village.	1150·084	1150·322

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks			Distance from Nandgaon		Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
29		BM.72 / 46 L	45·5	G.T.S. B.M.	On top of mile-stone No. 48.	1098·652	1098·878
30		BM.73 / 46 L	46·5	G.T.S. ○ B.M.	On N.E. corner of plinth of mile-stone No. 49.	1060·553	1060·771
31		BM.74 / 46 L	47·5	G.T.S. B.M.	On top of mile-stone No. 50.	1027·992	1028·202
32		BM.75 / 46 L	49·6	G.T.S. ○ B.M.	On about centre of W. parapet of bridge 12 chains N. of mile-stone No. 52.	899·048	899·230
33		BM.76 / 46 L	50·5	G.T.S. B.M.	On top of mile-stone No. 53.	869·776	869·952
34		BM.77 / 46 L	50·7	G.T.S. ○ B.M.	On kerb-stone embedded at N. end of W. parapet of bridge 16 chains N. of mile-stone No. 53 and in front of dharmshala at S. entrance to Dhulia town.	865·435	865·610
35		BM.78 / 46 L	50·9	G.T.S. ○ B.M.	On W. side of pedestal of lamp-post in centre of Manik Chauk market at Dhulia.	861·437	861·611
36		BM.79 / 46 L	51·6	G.T.S. ○ B.M.	On wing wall at base of pillar at N. end of W. parapet of bridge across Panjhra river at Dhulia.	845·976	846·146
	a / 36	BM 80 / 46 L	51·9	G.T.S. □ B.M.	at Dhulia Travellers' Bungalow. Embedded in flooring of front verandah, between two doorways. The bungalow is ¼ mile from N. bank of Panjhra river.	841·585	841·754
37		BM.81 / 46 L	52·2	G.T.S. ○ B.M.	On S.E. corner of plinth of mile-stone No. 55.	845·444	845·614
38		BM.82 / 46 L	54·2	G.T.S. B.M.	On top of mile-stone No. 57.	932·678	932·864
39		BM.83 / 46 L	55·2	G.T.S. ○ B.M.	On S.E. corner of plinth of mile-stone No. 58.	903·765	903·945
40		BM.84 / 46 L	56·2	G.T.S. B.M.	On top of mile-stone No. 59.	877·209	877·383
41		BM.85 / 46 L	57·7	G.T.S. ○ B.M.	On centre of W. parapet of bridge 36 chains N. of mile-stone No. 60.	853·662	853·830
42		BM.1 / 46 K	59·2	G.T.S. B.M.	On top of mile-stone No. 62.	817·392	817·551
43		BM.2 / 46 K	60·2	G.T.S. ○ B.M.	On about centre of W. parapet of bridge 1 chain S. of mile-stone No. 63.	796·295	796·449

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
44	BM.3 / 46 K	61·2	G.T.S. ○ B.M. On N. end of W. parapet of bridge near mile-stone No. 64.	775·127	775·277
45	BM.4 / 46 K	62·1	G.T.S. ○ B.M. On coping stone near pillar at S. end of E. parapet of bridge over Gul river, 11 chains S. of mile-stone No. 65.	772·572	772·721
46	BM 5 / 46 K	63·1	G.T.S. ○ B.M. On bottom step at front or W. entrance to S. half of Songir travellers' bungalow.	811·367	811·523
a / 46	BM.6 / 46 K	63·1	G.T.S. □ B.M. at Songir Travellers' Bungalow. Embedded flush with plinth of W. verandah of N. half of bungalow to right of steps.	812·762	812·918
47		63·3	Destroyed.	790·365	790·517
48	BM.7 / 46 K	64·4	G.T.S. ○ B.M. On S. end of W. parapet of bridge 2 chains N. of mile-stone No. 67.	816·826	816·982
49	BM.8 / 46 K	65·3	G.T.S. B.M. On top of mile-stone No. 68.	767·965	768·111
50	BM 9 / 46 K	66·3	G.T.S. ○ B.M. On about centre of W. parapet of bridge at mile-stone No. 69.	732·137	732·275
51	BM 10 / 46 K	67·3	G.T.S. B.M. On top of mile-stone No. 70.	689·200	689·330
52	BM 11 / 46 K	68·3	G.T.S. B.M. On top of mile-stone No. 71.	666·191	666·316
53	BM 12 / 46 K	69·3	G.T.S. B.M. On top of mile-stone No. 72.	640·442	640·562
54	BM 13 / 46 K	70·5	G.T.S. ○ B.M. On S. end of W. parapet of bridge 11 chains N. of mile-stone No. 73.	615·183	615·297
55		71·3	Destroyed.	592·866	592·976
56	BM.14 / 46 K	72·3	G.T.S. B.M. On top of mile-stone No. 75.	570·959	571·064
57	BM.15 / 46 K	72·4	G.T.S. ○ B.M. On W. end of S. parapet of bridge at gate of Pimprad travellers' bungalow.	567·156	567·260
58	BM.16 / 46 K	74·3	G.T.S. B.M. On top of mile-stone No. 77.	520·111	520·206
59	BM.17 / 46 K	75·3	G.T.S. B.M. On top of mile-stone No. 78.	501·923	502·014

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Nandgaon	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
60		76·3	Destroyed.	500·822	500·913
61	BM.18 / 46 K	77·4	G.T.S. □ B.M. at Dabasi. Embedded flush with surface of and in S.E. corner of platform of Mariai's small temple situated near mile-stone No. 80.	488·755	488·843
62	BM.19 / 46 K	79·4	G.T.S. ○ B.M. On centre of W. parapet of bridge near junction of cross road to Shirpur, ¼ mile S. of mile-stone No. 82, and a few chains N. of toll-house at Savalda.	497·593	497·682
a / 62	BM.20 / 46 K	83·7	G.T.S. □ B.M. at Shirpur. Embedded in N.E. corner of plinth of temple (Khandoba's) situated on N. bank of Arunavati river, near entrance to travellers' bungalow and 3 inches above plinth which is on a level with ground.	481·414	481·500
63	BM.21 / 46 K	85·7	G.T.S. ○ B.M. On plinth of mile-stone pillar No. 86.	523·536	523·628
64	BM.22 / 46 K	86·7	G.T.S. B.M. On top of mile-stone No. 87.	535·827	535·921
65	BM 23 / 46 K	87·7	G.T.S. B.M. On top of mile-stone No. 88.	559·321	559·419
66	BM.24 / 46 K	88·7	G.T.S. B.M. On top of mile-stone No. 89.	606·784	606·890
67	BM.25 / 46 K	89·7	G.T.S. ○ B.M. On plinth of mile-stone No. 90.	663·622	663·738
68	BM 26 / 46 K	90·7	G.T.S. ○ B.M. On S.W. corner of plinth of mile-stone No. 91.	701·916	702·038
69	BM.27 / 46 K	91·4	G.T.S. ○ B.M. On S. end of E. parapet of bridge 23 chains S. of mile-stone No. 92.	676·671	676·788
70	BM 28 / 46 K	92·1	G.T.S. ○ B.M. On N. end of W. parapet of bridge 35 chains N. of mile-stone No. 92.	729·544	729·670
71	BM.29 / 46 K	93·6	G.T.S. ○ B.M. On S.W. corner of plinth of mile-stone No. 94.	679·211	679·327
a / 71	BM.30 / 46 K	93·9	G.T.S. □ B.M. at Suliabandhara. Embedded in plinth of W. verandah and opposite S. doorway of travellers' bungalow.	674·825	674·940
72	BM 31 / 46 K	94·0	G.T.S. ○ B.M. On W. parapet of bridge across Jhirbai river, 8 chains N. of travellers' bungalow at Suliabandhara, and 27 chains N. of mile-stone No. 94.	671·668	671·783
73	BM.32 / 46 K	96·7	G.T.S. ○ B.M. On N.E. corner of plinth of mile-stone No. 97.	779·576	779·708
74	BM.33 / 46 K	97·3	G.T.S. ○ B.M. On S. end of W. parapet of bridge 28 chains S. of mile-stone No. 98.	820·555	820·693

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
75	BM.34 / 46 K	98·7	G.T.S ○ B.M.	On capstone of S. pillar of E. parapet of bridge across Arunavati river, at mile-stone No. 99.	736·738	736·861
76	BM 35 / 46 K	99·1	G.T.S. ○ B.M.	On top of pillar at S. end of wing wall of W. parapet of bridge 29 chains N. of mile-stone No. 99.	739·647	739·771
77	BM 1 / 46 O	100·1	G.T.S. ○ B.M.	On E. parapet towards S. end of bridge 47 chains S. of mile-stone No. 101.	784·745	784·875
78	BM.2 / 46 O	101·5	G.T.S. ○ B.M.	On N. end of E. parapet of bridge 12 chains S. of mile-stone No. 102.	830·053	830·190
79	BM.3 / 46 O	101·7	G T.S. B.M.	On top of mile-stone No. 102.	842·947	843·086
80	BM.4 / 46 O	102·7	G.T.S. ○ B.M.	On centre of E. parapet of bridge at mile-stone No. 103.	873·019	873·162
81		104·2	Destroyed.		944·675	944·829
a / 81	BM 5 / 46 O	104·2	G T S. □ B.M.	at Palasner, Khandesh District. Situated at N.W. corner of plinth of travellers' bungalow. The letters are cut on corner stone of plinth, half of corner stone being under N. wall of front verandah facing road.	944·439	944·593
82	BM 6 / 46 O	104·7	G.T.S. ○ B.M.	On N. end of E. parapet of bridge 3 chains N. of mile-stone No. 105.	978·597	978·757
83	BM 7 / 46 O	105·6	G.T.S. B.M.	On top of mile-stone No. 106.	1078·478	1078·653
84	BM 8 / 46 O	106·6	G.T.S. B.M.	On top of mile-stone No. 107 from Manmad.	1231·080	1231·278
85	BM.9 / 46 O	107·6	G.T.S. ○ B.M.	On S.W. corner of plinth of mile-stone No. 108 from Manmad.	1466·291	1466·526
86	BM.10 / 46 O	108·6	G.T.S. ○ B.M.	On S.W. corner of plinth of mile-stone No. 109 situated on crest of Palasner ghat, at foot of ruins of Borgarh fort.	1770·340	1770·623
87	BM.11 / 46 O	111·0	○	On top of mile-stone No. 100 from Indore.	1669·739	1670·001
88	BM.12 / 46 O	112·0	G.T.S. ○ B.M.	On centre of W. parapet of bridge 3 chains S. of mile-stone No. 99 from Indore.	1611·336	1611·589
89	BM.13 / 46 O	113·5	G.T.S. ○ B.M.	On S. end of W. parapet of bridge 36 chains N. of mile-stone No. 98 from Indore.	1533·011	1533·249

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks			Distance from Nandgaon		Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
90		BM.14 / 46 O	114·0	○	On top of mile-stone No. 97 from Indore.	1481·638	1481·868
91		BM.15 / 46 O	115·8	G.T.S. ○ B.M.	On centre of E. parapet of bridge 19 chains S. of mile-stone No. 95 from Indore.	1374·420	1374·632
92		BM.16 / 46 O	116·8	G.T.S. □ B.M.	at Sendhwa, Indore State. Situated on centre of platform of S. or principal entrance to fort. The platform is 6 feet square and 3 feet above ground.	1326·890	1327·094
93		BM.17 / 46 O	118·1	○	On top of mile-stone No. 93 from Indore.	1290·012	1290·209
94		BM.18 / 46 O	120·2	○	On top of mile-stone No. 91 from Indore.	1259·604	1259·796
95		BM.19 / 46 O	121·1	○	On top of mile-stone No. 90 from Indore.	1211·165	1211·348
96		BM.20 / 46 O	122·1	○	On top of mile-stone No. 89 from Indore.	1163·874	1164·049
97		BM.21 / 46 O	123·1	○	On top of mile-stone No. 88 from Indore.	1116·169	1116·335
98		BM.22 / 46 O	124·1	○	On top of mile-stone No. 87 from Indore.	1082·023	1082·183
99		BM.23 / 46 O	125·1	G.T.S. ○ B.M.	On S. end of E. parapet of bridge at mile-stone No. 86 from Indore.	1023·416	1023·567
100		BM.24 / 46 O	126·1	○	On top of mile-stone No. 85 from Indore.	1033·308	1033·460
101		BM.25 / 46 O	127·1	○	On W. parapet of bridge 2 chains N. of mile-stone No. 84. from Indore, and opposite well at Balsamand Chauki.	1009·462	1009·609
102		BM.26 / 46 O	128·1	○	On top of mile-stone No. 83 from Indore.	998·479	998·624
103		BM.27 / 46 O	130·0	○	On top of mile-stone No. 81 from Indore.	882·254	882·381
104		BM.28 / 46 O	131·0	○	On top of mile-stone No. 80 from Indore.	843·464	843·585
	a / 104	BM 29 / 46 O	132·0	G.T.S. □ B.M.	at Julwana, Barwani State. Embedded flush with floor of E. verandah, between two doors of S. half of travellers' bungalow. The bungalow is 5 chains W. of road on Julwana village lands.	877·874	878·000
105		BM.30 / 46 O	133·5	G.T.S. ○ B.M.	On W. parapet of bridge 36 chains S. of mile-stone No. 77 from Indore.	801·936	802·049

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
106	BM.31 / 46 O	134·5	G.T.S. ○ B.M.	On E. parapet of bridge 39 chains S. of mile-stone No. 76 from Indore.	781·229	781·338
107	BM 32 / 46 O	135·5	G T.S. ○ B.M.	On centre of E. parapet of bridge between mile-stones Nos. 76 and 75 from Indore	738·836	738·939
108	BM 33 / 46 O	136·0	○	On top of mile-stone No. 75 from Indore.	717·399	717·498
109	BM.34 / 46 O	137·1	G.T.S. ○ B.M.	On N. end of E. parapet of bridge 10 chains N. of mile-stone No. 74 from Indore.	700.834	700.931
110	BM.35 / 46 O	138·0		Top of mile-stone No. 73 from Indore.	707·035	707·132
111	BM.36 / 46 O	139·0	○	On top of mile-stone No. 72 from Indore.	678·153	678·245
112	BM 37 / 46 O	140·9	G.T.S. ○ B M.	On about centre of E. parapet of bridge 8 chains S. of mile-stone No. 70 from Indore.	698·310	698·404
113	BM 38 / 46 O	142·0	○	On top of mile-stone No. 69 from Indore.	720·010	720·106
114	BM 39 / 46 O	143·9	G.T.S. ○ B.M.	On centre of E. parapet of bridge 9 chains S. of mile-stone No. 67 from Indore.	731·275	731·373
115	BM 1 / 46 N	145·3	G T.S. ○ B.M.	On W. parapet of bridge 25 chains N. of mile-stone No. 66 from Indore.	659·442	659·530
116	BM 2 / 46 N	146·0	○	On top of mile-stone No. 65 from Indore.	632·075	632·158
a / 116	BM 3 / 46 N	146·3	G.T.S. □ B.M.	at Khurrampur, Indore State. Embedded flush with floor of E verandah of travellers' bungalow, against wall, opposite steps leading into N. half.	676·265	676·354
117	BM.4 / 46 N	146·4	G.T.S. ○ B.M.	On parapet wall at N.E. corner of well on E. margin of road, a few chains N. of Khurrampur.	627·307	627·390
118	BM.5 / 46 N	147·0	○	On top of mile-stone No. 64 from Indore.	607·967	608·047
119	BM.6 / 46 N	148·0	○	On top of mile-stone No. 63 from Indore.	594·568	594·645
120	BM 7 / 46 N	148·4	G.T.S. ○ B.M.	On capstone of N.E. pillar of causeway 30 chains N. of mile-stone No. 63 from Indore.	574·391	574·466
121	BM 8 / 46 N	149·5	G.T.S. ○ B.M.	On N.W. wing wall of causeway 39 chains N. of mile-stone No. 62 from Indore.	566·274	566·348

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
122	BM.9/46 N	151·0	○ On top of mile-stone No. 60 from Indore, opposite Thikri town.	566·409	566.482
1/122	BM.10/46 N	155·6	On top of rectangular protecting pillar of Thikri, G.T. Survey Hill Station, lat. 22° 1′ 2″·77. long. 75° 24′ 49″·98. A principal station of Khanpisura Meridional Series. (For full description *see* Synoptical Volume).	854·246	854·356
123	BM.11/46 N	152·0	○ On top of mile-stone No. 59 from Indore.	567·327	567·400
124	BM.12/46 N	152·9	G.T.S. ○ B.M. On W. parapet of bridge 10 chains S. of mile-stone No. 58 from Indore.	584·553	584·628
125	BM.13/46 N	154·0	○ On top of mile-stone No. 57 from Indore.	568·278	568·350
126	BM.14/46 N	155·5	G.T.S. ○ B.M. On W. parapet of bridge 38 chains N. of mile-stone No. 56 from Indore.	537·709	537·777
127	BM.15/46 N	157·0	G.T.S. ○ B.M. On E parapet of bridge 4 chains N. of mile-stone No. 54 from Indore.	517·951	518·015
a/127	BM.16/46 N	157·9	G.T.S. □ B.M. at Khalghat, Dhar State, Bhil Agency. Embedded flush with floor of W. verandah of S. half of travellers' bungalow against wall dividing rooms and near doorway. The bungalow is on left bank of Narbada river, 10 chains E. of road.	496·409	496·471
128	BM.17/46 N	159·0	○ On top of mile-stone No. 52 from Indore.	525·394	525·459
129	BM.18/46 N	159·9	○ On top of mile-stone No. 51 from Indore.	528·306	528·370
130	BM.19/46 N	161·9	○ On top of mile-stone No. 49 from Indore.	551·405	551·471
131	BM.20/46 N	162·9	○ On top of mile-stone No. 48 from Indore.	570·017	570·085
132	BM.21/46 N	163·9	○ On top of mile-stone No. 47 from Indore.	587·137	587·206
133	BM.22/46 N	164·9	○ On top of mile-stone No. 46 from Indore.	608·719	608·790
134	BM.23/46 N	166·6	G.T.S. ○ B.M. On E. parapet of bridge 21 chains S. of mile-stone No. 44 from Indore.	685·605	685·684
135	BM.24/46 N	167·9	○ On top of mile-stone No. 43 from Indore.	719·350	719·432

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
136	BM 25 / 46 N	169·7	G.T.S. ○ B.M.	On E. parapet of bridge, 12 chains S. of mile-stone No. 41 from Indore.	740·350	740·434
a / 136	BM.26 / 46 N	170·3	G T S. □ B M.	at Gujri, Dhar State, Bhil Agency. Embedded flush with floor in E. verandah of travellers' bungalow, in N. half of building, against wall and in corner formed by the divisional doorway and wall.	759·676	759·762
137	BM.27 / 46 N	170·9	○	On top of mile-stone No. 40 from Indore, in centre of Gujri bazar.	763·835	763·921
138	BM.28 / 46 N	171·9	○	On top of mile-stone No. 39 from Indore.	809·435	809·525
139	BM.29 / 46 N	172·9	○	On top of mile-stone No. 38 from Indore.	884·418	884·516
140	BM 30 / 46 N	174·3	G.T.S. ○ B.M.	On N. end of E. parapet of northern of two bridges at Bakaner village, 36 chains N. of mile-stone No. 37 from Indore.	963·921	964·027
141	BM 31 / 46 N	176·8	○	On top of mile-stone No. 34 from Indore.	1443·253	1443·409
142	BM.32 / 46 N	177·8	○	On top of mile-stone No. 33 from Indore.	1448·702	1448·857
143	BM 33 / 46 N	178·8	○	On top of mile-stone No. 32 from Indore.	1489·501	1489·660
144	BM 34 / 46 N	179·1	G.T S. ○ B.M.	On W. parapet over 1st arch from S. of bridge No. 32/55 across Ajnar river, and 26 chains N. of mile-stone No. 32 from Indore.	1445·239	1445·394
145	BM 35 / 46 N	179·8	○	On top of mile-stone No. 31 from Indore.	1556·295	1556·461
146	BM.36 / 46 N	181·4	G.T.S. ○ B.M.	On W. parapet of bridge 28 chains S. of mile-stone No. 29 from Indore.	1800·947	1801·138
147	BM 37 / 46 N	181·8	○	On top of mile-stone No. 29 from Indore, opposite Phut talao.	1814·900	1815·092
148	BM 38 / 46 N	183·2	G.T.S. □ B.M.	at Manpur. Embedded flush with floor, in W. verandah of travellers' bungalow, against wall and near corner formed by bath-room wall.	1842·591	1842·786
149	BM.39 / 46 N	184·0	G.T.S. ○ B.M.	On W. end of 2nd step at front entrance to Barwani Raja's Vakil's house at Manpur.	1884·423	1884·621

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
$\frac{1}{149}$	BM.40 / 46 N	188·6	On upper surface of circular pillar of Singarchori G.T. Survey Hill Station, lat. 22° 24′ 39″·91 long. 75° 40′ 28″·44. A principal station of Khanpisura Meridional Series. (For full description *see* Synoptical Volume).	2890·461	2890·764
150	BM.41 / 46 N	185·9	○ On top of mile-stone No. 25 from Indore.	1945·992	1946·194
151	BM.42 / 46 N	186·9	○ On top of mile-stone No. 24 from Indore.	1913·097	1913·294
152	BM.43 / 46 N	188·9	○ On top of mile-stone No. 22 from Indore.	1939·119	1939·315
153	BM.44 / 46 N	190·8	○ On top of mile-stone No. 20 from Indore.	2057·993	2058·199
154	BM.45 / 46 N	191·8	G.T.S. ○ B.M. On W. parapet of bridge 4 chains S. of mile-stone No. 19 from Indore, opposite tank at Jamli village.	2001·605	2001·805
155	BM.46 / 46 N	192·8	○ On top of mile-stone No. 18 from Indore.	2023·060	2023·260
156	BM.47 / 46 N	193·8	○ On top of mile-stone No. 17 from Indore.	1981·676	1981·872
157	BM.48 / 46 N	194·8	○ On top of mile-stone No. 16 from Indore.	1987·701	1987·896
158	BM.49 / 46 N	195·8	○ On top of mile-stone No. 15 from Indore.	1914·250	1914·438
159	BM.50 / 46 N	196·6	G.T.S. ○ B.M. On E. step of well at junction of several roads a few chains N. of fort at Mhow, at S. entrance to cantonment, near Military Library.	1904·360	1904·545
160	BM.51 / 46 N	197·3	G.T.S. ○ B.M. On corner stone of drain on N. side of cross road to railway station, opposite Honorary Magistrate's court, Sadar Bazar, Mhow.	1902·368	1902·552
161	BM.52 / 46 N	198·2	○B.M. On E. end of S. abutment of bridge No. 363 at level crossing No. 29, near telegraph post No. $\frac{318}{11}$, and 1 mile N. of Railway Station at Mhow.	1861·834	1862·013
$\frac{1}{161}$	BM.53 / 46 N	199·1	G.T.S. ○ B.M. On stone coping of platform opposite booking office at Mhow Railway Station.	1886·172	1886·353

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
2/161	BM.54/46 N	199·2	G.T.S. □ B.M. 1844 at Mhow Railway Station. Embedded with upper surface 15 inches above ground level: it projects from N.W. corner of refreshment room godown, at right of entrance verandah of station. The stone is a bench-mark of Public Works Department, and bears the following inscription "R.L. 1880 22" cut on W. face.	1886·787	1886·968
2a/161	BM 55/46 N	199·2	Plinth of store room (godown) immediately at back of refreshment room, at Mhow Railway Station.	1887·947	1888·128
162	BM 56/46 N	198·7	G.T.S. ○ B.M. On W. end of S. abutment of bridge No. 367, across Sater river, near telegraph post No. 318/2, 1½ miles N. of Mhow Railway Station.	1856·895	1857·073
163	BM.57/46 N	199·2	G.T.S. ○ B.M. On W. end of S. abutment of bridge No. 368, near telegraph post No. 317/9, 39 chains N. of mile-post No. 318.	1856·662	1856·838
164	BM.58/46 N	200·6	B.○M. On E. end of S. abutment of bridge No. 371, between telegraph posts Nos. 316/3 and 316/4, 14 chains S. of mile-post No. 316.	1864·529	1864·704
165	BM 59/46 N	201·7	G.T.S. ○ B.M. On E end of S. abutment of bridge No. 373, near mile-post No. 315.	1897·054	1897·230
166	BM.60/46 N	203·1	G.T.S. ○ B.M. On stone coping of platform opposite booking office at Rao Railway Station.	1915·856	1916·032
167	BM.61/46 N	203·5	G.T.S. ○ B.M. On S E. corner of plinth of gatekeeper's house at level crossing No. 32, opposite Rao village.	1904·478	1904·653
168	BM.62/46 N	205·1	G.T.S. ○ B.M. On E end of N. abutment of bridge No. 393, near telegraph post No. 311/10, 36 chains N. of mile-post No. 312.	1868·784	1868·954
169	BM.63/46 N	206·9	G.T.S. ○ B.M. On E. end of N. abutment of bridge No. 400, between telegraph posts Nos. 309/13 and 309/14.	1843·469	1843·635
170	BM 64/46 N	207·7	G.T.S. ○ B.M. On E. end of S. abutment of bridge No. 404, near telegraph post No. 308/17.	1825·613	1825·776
171	BM.65/46 N	208·7	G.T.S. ○ B.M. On W. end of N. abutment of bridge No. 409, 6 chains S. of level crossing No. 35, near mile-post No. 308.	1812·894	1813·054

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
172		BM.66 / 46 N	209·9	G.T.S. ○ B.M.	On E. end of N. abutment of bridge No. 418, 24 chains S. of Indore Railway Station.	1805·252	1805·409
173		BM.67 / 46 N	210·2	G.T.S. ○ B.M.	On stone coping of platform of Indore Railway Station opposite signal staff.	1806·219	1806·374
174		BM.68 / 46 N	210·3	G.T.S. □ B.M.	at Indore Railway Station. Embedded alongside N. wall of tank-house, between its N.W. corner and window 1 furlong N. of station. The surface of bench-mark is about 4 inches above ground, and letters B.M. are cut on wall opposite bench-mark.	1805·220	1805·375
175		BM.69 / 46 N	211·5	○	On top of mile-stone No. 2 a few chains W. of junction of roads from Indore City and Residency to Dewas.	1807·059	1807·214
176		BM.70 / 46 N	213·2	○	On top of mile-stone No. 3 from Indore.	1786·538	1786·690
177		BM.71 / 46 N	214·2	○	On top of mile-stone No. 4 from Indore.	1802·165	1802·316
178		BM.72 / 46 N	216·2	○	On top of mile-stone No. 6 from Indore.	1772·350	1772·495
179		BM.73 / 46 N	216·8	G.T.S. ○ B.M.	On S. end of W. parapet of bridge No. 13, 32 chains S. of mile-stone No. 7 from Indore.	1761·950	1762·093
180		BM.74 / 46 N	218·2	○	On top of mile-stone No. 8 from Indore.	1747·247	1747·387
181		BM.75 / 46 N	219·2	○	On top of mile-stone No. 9 from Indore.	1773·708	1773·848
182		BM.76 / 46 N	221·1	○	On top of mile-stone No. 11 from Indore.	1726·220	1726·355
183		BM.77 / 46 N	222·1	G.T.S. ○ B.M.	On E. end of N. parapet of bridge near rest-house at Dakachia village at mile-stone No. 12 from Indore.	1723·344	1723·477
	a / 183	BM.78 / 46 N	222·2	G.T.S. ○ B.M.	Embedded in S. verandah of P.W.D. rest-house at Dakachia flush with ground level, against wall to right of doorway.	1720·091	1720·223
184		BM.79 / 46 N	223·3	G.T.S. ○ B.M.	near S. end of E. parapet of bridge No. 25, 15 chains N. of mile-stone No. 13 from Indore.	1701·747	1701·876
185		BM.80 / 46 N	224·1	○	On top of mile-stone No. 14 from Indore.	1692·801	1692·928

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon		Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
186	BM.81 / 46 N	225·3	G.T.S. ○ B.M.	On S.E. corner of platform of Devi's temple on N. bank of Sipra river.	1664·906	1665·029
187	BM.82 / 46 N	226·1	○	On top of mile-stone No. 16 from Indore.	1700·751	1700·875
188	BM.1 / 55 B	228·2	G.T.S. ○ B.M.	On S. end of W. parapet of bridge No. 37, opposite Rasulpur village, 9 chains N. of mile-stone No. 18 from Indore.	1726·058	1726·182
189	BM 2 / 55 B	229·0	○	On top of mile-stone No. 19 from Indore.	1741·754	1741·879
190	BM 3 / 55 B	230·0	○	On top of mile-stone No. 20 from Indore.	1726·635	1726·758
191	BM.4 / 55 B	231·4	G.T.S. ○ B.M.	On S. end of 1st footing of N. flight of steps leading into front verandah, opposite N. doorway of Government Telegraph Office at Dewas.	1756·226	1756·349
a / 191	BM 5 / 55 B	232·5	G.T.S. □ B.M.	at Dewas Travellers' Bungalow. Embedded flush with floor of N. verandah, at right hand corner of same.	1787·954	1788·079
192	BM.6 / 55 B	232·8	G.T.S. ○ B.M.	On W. end of N. parapet of bridge No. 1, on main road from Dewas to Bhopal, about ¼ mile E. of travellers' bungalow at Dewas.	1784·293	1784·418
193	BM.7 / 55 B	234·7	G.T.S. ○ B.M.	On W. end of N. parapet of bridge No. 4, 25 chains E. of mile-stone No. 2 from Dewas.	1773·199	1773·323
194	BM 8 / 55 B	235·6	G.T.S. ○ B.M.	Near E. end of N. parapet of bridge No. 7, 16 chains E. of mile-stone No. 3 from Dewas.	1770·395	1770·519
195	BM 9 / 55 B	236·4	G.T.S. ○ B.M.	On W. end of N. parapet of bridge No. 9, 3 chains, E. of mile-stone No. 4 from Dewas.	1736·688	1736·810
196	BM.10 / 55 B	237·5	G.T.S. ○ B.M.	On E. end of S. parapet of bridge No. 12, 7 chains E. of mile-stone No. 5 from Dewas.	1726·745	1726·866
197	BM.11 / 55 B	239·0	G.T.S. ○ B.M.	On E. end of N. parapet of bridge No. 16, 31 chains W. of mile-stone No. 7 from Dewas.	1682·670	1682·786
198	BM.12 / 55 B	239·5	G.T.S. ○ B.M.	On E. end of N. parapet of bridge No. 17, 10 chains E. of mile-stone No. 7 from Dewas.	1674·141	1674·257
199	BM.13 / 55 B	241·8	G.T.S. ○ B.M.	On S. parapet of bridge No. 19 at chauki opposite Bhaurasa village, 35 chains E. of mile-stone No. 9 from Dewas.	1615·517	1615·629

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
200	BM.14 / 55 B	242·3	○	On top of mile-stone No. 10 from Dewas.	1602·517	1602·628
201	BM.15 / 55 B	243·3	G.T.S. ○ B.M.	On S. parapet of bridge No. 23 at mile-stone No. 11 from Dewas.	1589·912	1590·022
202	BM.16 / 55 B	245·4	G.T.S. ○ B.M.	Embedded flush with floor of S. verandah of Arnia travellers' bungalow, near wall and between 1st and 2nd doorways from W.	1569·594	1569·702
203	BM.17 / 55 B	247·1	G.T.S. ○ B.M.	On about centre of S. parapet of bridge No. 25, 19 chains W. of mile-stone No. 15 from Dewas, and a few chains S.W. of Phaura village.	1569·762	1569·870
204	BM.18 / 55 B	248·7	G.T.S. ○ B.M.	On centre of N. parapet of bridge No. 30, at foot of hill, 2 miles W. of Kali Sindh river, and 32 chains E. of mile-stone No. 16 from Dewas.	1591·160	1591·270
205	BM.19 / 55 B	250·3	G.T.S. ○ B.M.	On centre of S. parapet of bridge No. 34, 2 chains W. of mile-stone No. 18 from Dewas.	1548·952	1549·059
206	BM.20 / 55 B	251·3	○	On top of mile-stone No. 19 from Dewas, on S. margin of road and a few chains E. of town of Sonkach. The letters B.M. are cut on back face of stone.	1556·836	1556·943
207	BM.21 / 55 B	252·7	G.T.S. ○ B.M.	Near E. end of N. parapet of bridge, 35 chains E. of mile-stone No. 20 from Dewas.	1553·721	1553·829
208	BM.22 / 55 B	253·2	○	On top of mile-stone No. 21 from Dewas. The letters B.M. are cut on back face of stone.	1583·732	1583·843
209	BM.23 / 55 B	254·6	G.T.S. ○ B.M.	On E. end of S. parapet of bridge 28 chains E. of mile-stone No. 22 from Dewas.	1597·970	1598·082
210	BM.24 / 55 B	255·3	G.T.S. □ B.M.	at Daulatpur Travellers' Bungalow. Embedded flush with ground level, at N.E. corner of building adjoining N. wall. The letters B.M. are cut on wall, 4 feet above ground over bench-mark.	1613·404	1613·517
211	BM.25 / 55 B	256·3	○	On top of mile-stone No. 24 from Dewas. The letters B.M. are cut on back face of stone.	1615·264	1615·375
a / 211	BM 26 / 55 B	258·4	G.T.S. ○ B.M.	On S.E. corner of platform of pakka shrine situated on E. side of tank, near mile-stone No. 26 from Dewas.	1657·296	1657·410
212	BM 1 / 55 A	267·4	G.T.S. ○ B.M.	On stone pavement of verandah opposite N. doorway of travellers' bungalow at Dodi village.	1644·022	1644·132

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
213	BM.2 / 55 A	277·6	G.T.S. □ B.M. at Ashta Travellers' Bungalow. Embedded flush with floor of N. verandah of bungalow and in E. corner. The bungalow is ¾ mile N.E. of the town.	1605·920	1606·026
a / 213	BM 3 / 55 A	282·3	A line cut below engraving on inscription stone in centre of N. parapet of bridge over nala at Bedakheri village, 13 chains E. of mile-stone No. 50 from Dewas.	1601·213	1601·319
b / 213	BM.4 / 55 A	287·2	A line cut below engraving on inscription stone in centre of N. parapet of bridge opposite Lasulia village, near mile-post No. 55 from Dewas.	1616·130	1616·237
214	BM.5 / 55 A	290·7	B.O.M. On stone at foot of ruins of a Sati tomb, on N. margin of road opposite Amlai village.	1609·110	1609·207
215	BM.6 / 55 A	290·7	G.T.S. □ B.M. at Amlai. Embedded in a 4 feet cube pillar, 3 feet of which is below ground level, situated on N. margin of road, 35 yards from B.M. No. 214, and a few chains E. of Amlai village.	1611·601	1611·698
a / 215	BM.1 / 55 E	302·6	G.T.S. ○ B.M. On stone coping at N.W. corner of platform of Hindu tomb on left bank of Sewan nadi and a few chains W. of bridge over same, about a mile W. from Post Office at Sehore.	1614·821	1614·918
216	BM.2 / 55 E	303·5	G.T.S. □ B.M. at Sehore. Embedded flush with floor of S. verandah of Executive Engineer's Office which is on N. margin of road and opposite Post Office.	1616·271	1616·358
a / 216	BM.3 / 55 E	303·6	G.T.S. ○ B.M. On E. end of bottom step at front entrance to Post Office, Sehore.	1617·144	1617·231
217	BM.4 / 55 E	314·6	G.T.S. □ B.M. at Khajuri. Embedded in plinth of travellers' bungalow under centre arch of N. verandah, between two flights of steps, flush with surface of plinth, which is 18 inches above ground.	1689·186	1689·274
218	BM.5 / 55 E	325·3	G.T.S. ○ B.M. On stone seat on E. side of gate called Pir-ka-darwaza, on N. side of Bhopal Fort. The stone forming the seat is the corner stone of plinth, which is about 3 feet above ground.	1697·610	1697·695
a / 218	BM.6 / 55 E	328·4	G.T.S. ○ B.M. On stone step of 2nd doorway from S. in E. verandah of Bhopal Kothi.	1678·271	1678·355
219	BM.7 / 55 E	330·9	G.T.S. ○ B.M. On stone step on E. side of a square well at Chopra village chauki and on W. margin of road from Bhopal to Bhilsa.	1613·036	1613·110
220	BM.8 / 55 E	335·0	G.T.S. ○ B.M. On centre of bottom step at W. entrance to Faujdar Muhammad Khan's dharmshala, 1 mile N. of Sukhi Siwania village.	1606·869	1606·940

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/220	BM.9/55 E	339·0	On top of rectangular protecting pillar of Gidgarh, G.T. Survey Hill Station, lat. 23° 23′ 7″·14, long. 77° 32′ 55″·19. A principal station of Great Arc Meridional Series, Section 18° to 24°. (For full description *see* Synoptical Volume).	1889·491	1889·574
221	BM 10/55 E	341·6	G.T.S. □ B.M. at Diwanganj. Embedded level with plinth 2 feet above ground opposite centre of N. wall of Mahadeo's temple situated 6 chains to W. of thana.	1497·639	1497·699
222	BM.11/55 E	349·2	○ On top of pyramidal stone idol called Dhimgir, on N. margin of road and a few chains N.W. of Naroda village. The letters B.M. are cut on back face opposite the carving on stone.	1441·928	1441·980
223	BM.12/55 E	350·9	G.T.S. ○ B.M. On coping stone of W. wall of passage leading into a well and 12 feet from its S. end; the well is on N. margin of road, ¾ mile S.W. of Gulgaon village.	1429·249	1429·299
224	BM.13/55 E	357·0	G.T.S. ○ B.M. On N.W. corner of plinth or basement of boundary pillar (Bhopal and Gwalior) on S. margin of road, about 1 mile W. of Betwa bridge.	1382·064	1382·111
a/224	BM.14/55 E	358·2	A line below engraving on inscription stone in centre of N. parapet of bridge across Betwa river 2 miles W. of Bhilsa.	1388·221	1388·268
225	BM.15/55 E	359·7	G.T.S. ○ B.M. On stone coping of circular well, near Gulgan Chauki at S. entrance to Bhilsa.	1383·933	1383·977
226	BM.16/55 E	361·2	G.T.S. □ B.M. at Bhilsa. Engraved on N.E. corner of platform, 5 feet above ground, of stone temple dedicated to Mahadeo, situated on right bank of Betwa river, 50 yards E. of bathing ghat, to W. of road to Sironj, and 1 mile N. of Bhilsa.	1364·290	1364·332
227	BM.17/55 E	361·4	G.T.S. ○ B.M. On S.E. corner of platform of southern of two Mahadeo's temples on an island called Charan-tirath, in Betwa river, 1 mile N. of Bhilsa, on road to Sironj.	1358·910	1358·952
228	BM 18/55 E	364·3	G.T.S. ○ B.M. On stone coping of N. wall near N.W. corner of roof over well, on E. margin of road opposite Bamankhera village.	1378·969	1379·009
229	BM.19/55 E	367·5	G.T.S. ○ B.M. On N.E. corner of stone platform of Hanuman's idol on W. margin of road adjoining W. side of Lashkarpur village, near a pakka well.	1369·195	1369·231
230	BM.20/55 E	369·4	G.T.S. ○ B.M. On centre of bottom step of platform of Mahadeo's idol, 10 yards S. of well on S.W. side of Shankarkhera village.	1377·293	1377·326
231	BM.21/55 E	377·6	G.T.S. ○ B.M. On third step on E. side of Mahadeo's temple, 10 chains N.W. of Nateran village, on right margin of cart track to Seo village.	1357·433	1357·455

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/231	BM.22/55 E	377·7	G.T.S. □ B.M. at Nateran. Embedded level with ground and flush with stone basement of Mahadeo's temple on right margin of cart-track to Seo village, 10 chains N.W. of Nateran.	1355·850	1355·872
232	BM.1/54 H	395·7	G.T.S. ○ B.M. On bottom step on E. side of Nirbhai Sing lambardar's tomb, 15 chains N.W. of Imlani village, and 6 miles S. of Sironj.	1515·706	1515·704
1/232	BM 23/55 E	397·0	On top of rectangular protecting pillar of Kamkhera G. T. Survey Hill Station, lat. 23° 59′ 44″·93, long. 77° 43′ 6″·85. A principal station of Sironj Base-Line Figure. (For full description *see* Synoptical Volume).	1781·625	1781·623
233	BM.2/54 H	395·7	G.T.S. □ B.M. Embedded flush with ground in a pillar adjoining N.W. corner of Nirbhai Sing lambardar's tomb, 15 chains N.W. of Imlani village, and situated on E. side of road to Sironj. The letters B.M. are cut on N.W. corner of tomb.	1514·635	1514·633
234	BM.3/54 H	400·5	G.T.S. ○ B.M. On N.W. corner of northern of two tombs in Ramnarayan Lambardar's garden about ¼ mile S. of Amadhana village and 4 miles S.E. of Sironj town.	1514·121	1514·113
1/234	BM 4/54 H	400·8	G.T.S. ○ B.M. On plinth (towards W.) of a circular stone well about 4 chains N.W. of Amadhana village.	1503·957	1503·949
2/234	BM 5/54 H	404·2	G.T.S. ○ B.M. On plinth of E. verandah near N. pillar of 5th arch from S. of Mian Mannu's, house in Ashtana bazar, in Sironj town, and on road to Bhopal.	1548·082	1548·074
2a/234	BM.6/54 H	404·6	G.T.S. □ B.M. at Sironj. Embedded flush with flooring of verandah of Nawab's Treasury, opposite 1st doorway from N. The Treasury is on W. side of main street and 4 chains S. of Kotwali.	1550·229	1550·221
3/234	BM.7/54 H	414·1	G.T.S. ○ B.M. On trough at head and on N. side of well, on W. side of road at Surantal chauki.	1772·565	1772·556
3a/234	BM 8/54 H	414·7	On mark-stone on upper surface of pillar of Surantal, G.T. Survey Hill Station, lat. 24° 14′ 20″·42, long. 77° 40′ 43″·91. A principal station of Sironj Base-Line Figure. (For full description *see* Synoptical Volume).	1801·544	1801·535
4/234	BM.9/54 H	419·7	G.T.S. ○ B.M. On 3rd step on E. side of tomb situated on E. side of road in a fruit garden ¼ mile N. of Moghal Sarai village. The tomb is erected in memory Tejmal Baura (Brahmin).	1726·842	1726·833
5/234	BM 10/54 H	425·0	Mohasa bench-mark. Embedded 40 yards W. of village of that name in Jagir of Inami Sahib of Arun, Gwalior State, and 5 miles N. from Moghal Sarai, on road between Gwalior and Sironj. The bench-mark consists of a pyramidal stone buried flush with ground level.	1738·857	1738·848

Main-Line 34. (Nandgaon to Sironj).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
235	BM.11 / 54 H	401·6	On lower mark-stone of Sironj Base-Line, S.W. end, G. T. Survey Station, lat. 24° 4′ 45″·99, long. 77° 45′ 26″·21. A principal station of Sironj Base-Line Figure. (For full description *see* Synoptical Volume).	1528·458	1528·449
236	BM.12 / 54 H	405·8	Stone measuring 6 inches by 5 inches at surface, with hole ¾ inch in diameter, embedded ¾ mile W. of Patharia village. It is on ray between two ends of Sironj Base-Line, 3 miles from N.E. end and 4 miles from S.W. end.	1477·251	1477·239
237	BM.13 / 54 H	408·8	On mark-stone on upper surface of pillar of Sironj Base-Line, N.E. end, G. T. Survey Station, lat. 24° 8′ 53″·57, long. 77° 50′ 41″·14. A principal station of Sironj Base-Line Figure. (For full description *see* Synoptical Volume).	1478·358	1478·343

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.44 / 46 L	0·0	G.T.S. □ B.M. at Nandgaon Railway Station. Embedded near N. end of platform, 6 inches below its surface, 62 feet from N.E. corner, 11 feet from E. edge and 33 feet from N E. corner of row of office rooms.	1554·007	1554·377
2	BM 86 / 46 L	2·3	G.T.S. ○ B.M. On E. parapet of S. abutment of bridge midway between mile-posts Nos. 179 and 180 from Bombay.	1551·639	1552·008
3	BM 87 / 46 L	3·7	G.T.S. ○ B.M. On S. parapet of E. abutment of bridge 1 furlong N. of mile-post No. 181 from Bombay.	1513·507	1513·867
4	BM.88 / 46 L	5·4	G.T.S. ○ B.M. On S. parapet of E. abutment of bridge near Jalgaon village and between mile-posts Nos. 182 and 183 from Bombay.	1500·134	1500·491
5	BM 89 / 46 L	7·7	G.T.S. ○ B.M. On N. parapet of E. abutment of easternmost span of bridge about 1 furlong E. of railway mile-post No. 185 from Bombay.	1486·204	1486·559
6	BM 90 / 46 L	8·3	G.T.S. ○ B.M. On middle of S. parapet of bridge over Piparkhed stream and between mile-posts Nos. 185 and 186 from Bombay.	1465·779	1466·129
7	BM 91 / 46 L	8·8	G.T.S. ○ B.M. On S. parapet of culvert 1 furlong E. of mile-post No. 186 from Bombay.	1457·805	1458·153
8	BM 92 / 46 L	10·8	G T.S. ○ B.M. On W. parapet of culvert about ¼ mile N. of mile-post No. 188 from Bombay.	1428·376	1428·716
9	BM.93 / 46 L	11·5	B.○M. On centre of E. parapet of bridge, 7 chains S. of mile-post No. 189 from Bombay.	1411·823	1412·159
10	BM 94 / 46 L	12·7	Rail opposite booking office at Naydongri Railway Station.	1389·839	1390·168
11	BM.95 / 46 L	12·7	G.T.S. □ B.M. at Naydongri Railway Station. Embedded 6 inches below surface of platform. The E. corner of row of office rooms is 77 feet to W., S.W. corner of platform 137 feet, and its edge 7 feet from bench-mark.	1392·110	1392·440
12	BM.96 / 46 L	14·0	G.T S. B.○M. On W. parapet of bridge 35 chains N. of mile post No. 191 from Bombay.	1373·222	1373·546
13	BM.97 / 46 L	15·1	G.T.S. B.○M. On E. parapet of bridge 36 chains S. of mile-post No. 193 from Bombay.	1367·718	1368·041
14	BM.98 / 46 L	15·7	G.T.S. ○ B.M. On lowest step leading up to Rohini Railway Crossing Station.	1376·265	1376·588
15	BM.99 / 46 L	16·8	G.T.S. B.○M. On N. end of W. parapet of bridge 21 chains N. of mile-post No. 194 from Bombay.	1341·121	1341·436

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
16	BM.100/46 L	18·8	G.T.S. B.O.M.	On S. end of E. parapet of bridge between telegraph posts Nos. 196/7 and 196/8, and 22 chains N. of mile-post No. 196 from Bombay.	1271·964	1272·262
17	BM.101/46 L	20·5	B.O.M.	On W. end of topmost step of well, known as Jagirdar's well, 2 chains N. of railway line, and 3 chains S. of Hirapur village.	1220·744	1221·028
18	BM.102/46 L	21·1	G.T.S. B.O.M.	On 2nd step leading up to platform and booking office at Hirapur Railway Station.	1215·123	1215·405
19	BM.103/46 L	22·4	G.T.S. O B.M.	On stone coping of N.W. parapet of bridge near telegraph post No. 199/17, and about 16 chains S.W. of mile-post No. 200 from Bombay.	1207·535	1207·815
20	BM.104/46 L	23·7	G.T.S. O B.M.	On stone coping of N.W. parapet of bridge 10 chains N.E. of mile-post No. 201 from Bombay.	1180·948	1181·221
21	BM.105/46 L	24·3	G.T.S. O B.M.	On top of N.E. wall of culvert, 3 feet from S.E. end, 25 chains S.W. of mile-post No. 202 from Bombay.	1174·332	1174·602
22	BM.1/46 P	26·1	G.T.S. B.O.M.	On flag-stone of down platform, near front wall of 3rd class waiting room at Chalisgaon Railway Station.	1142·362	1142·625
23	BM.2/46 P	26·1	G.T.S. B.M. □	at Chalisgaon Railway Station. Embedded in down platform, with its top surface flush with pavement, in front of booking office window, close to wall of building.	1142·364	1142·627
24	BM.3/46 P	26·1		Rail opposite booking office at Chalisgaon Railway Station.	1139·640	1139·902
25	BM.4/46 P	27·7	G.T.S. B.O.M.	On S.E. parapet of culvert, 7 chains N.E. of mile-post No. 205 from Bombay.	1100·344	1100·596
26	BM.5/46 P	28·6	G.T.S. B.O.M.	On S.E. parapet of culvert, 1 chain S. of mile-post No. 206 from Bombay.	1085·226	1085·474
27	BM.6/46 P	29·4	G.T.S. O B.M.	On S.E. parapet of culvert, 3 chains N.E. of railway crossing No. 121, and 17 chains S.W. of mile-post No. 207 from Bombay.	1076·378	1076·623
28	BM.7/46 P	30·7	G.T.S. B.O.M.	On S.E. parapet of bridge, 6 chains N.E. of mile-post No. 208 from Bombay.	1080·501	1080·747
29	BM.8/46 P	31·8	B.O.M.	On platform coping on N. side of steps leading up to booking office and close to home semaphore at Vaghli Railway Station.	1076·718	1076·962
30	BM.9/46 P	31·8	G.T.S. O B.M.	On bottom step of flight leading up to booking office at Vaghli Railway Station.	1074·830	1075·074

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
31	BM 10 / 46 P	32·6	G.T.S. ○ B.M.	On S.W. end of S.E. parapet of culvert, 3 chains S.W. of mile-post No. 210 from Bombay.	1054·087	1054·325
32	BM.11 / 46 P	33·6	G.T.S. B.○M.	On S E. parapet of bridge, 3 chains S.W. of mile-post No. 211 from Bombay.	1028·713	1028·946
33	BM.12 / 46 P	34·6	G.T.S. ○ B.M.	On S.E. parapet of culvert, 2 chains N.E. of mile-post No. 212 from Bombay.	1001·225	1001·450
34	BM.13 / 46 P	35·6	G.T.S. ○ B.M.	On S.E. parapet of culvert, 2 chains N.E. of mile-post No. 213 from Bombay.	996·557	996·780
35	BM 14 / 46 P	36·5	G.T S. ○ B.M.	On S.E. parapet of culvert, 4 chains S.W. of mile-post No. 214 from Bombay.	983·677	983·897
36	BM.15 / 46 P	37·5	G.T.S. ○ B.M.	On S.E. parapet of bridge, 2 chains S.W. of mile-post No. 215 from Bombay.	966·584	966·800
37	BM 16 / 46 P	37·9	G.T.S. B M. □	at Kajgaon Railway Station. Embedded in down platform at S.E corner of latrine, level with platform; 2 feet from S.E. corner of latrine, 14 feet from S.W. corner, and 2 feet from wall. The edge of platform is 14 feet to S. and B.M. No. 38 lies 90 feet S.E.	970·088	970·304
38	BM.17 / 46 P	37·9	G.T.S. ○ B.M.	On platform coping in front of booking office at Kajgaon Railway Station.	970·088	970·304
39	BM.18 / 46 P	39·8	B.○M.	On N.E. end of N.W. parapet of bridge, 15 chains N.E. of mile-post No. 217 from Bombay.	938·979	939·187
40	BM.19 / 46 P	41·1	B.○M.	On coping at S.W. end of S.E. parapet of bridge, between telegraph posts Nos. $\frac{218}{14}$ and $\frac{218}{15}$, 35 chains S.W. of mile-post No. 219 from Bombay.	927·297	927·502
41	BM 20 / 46 P	43·1	B.○M.	On N.W. pilaster cap of bridge over Titur river near Bhadgaon town.	909·300	909·500
$\frac{1}{41}$	BM.21 / 46 P	44·2	○	On bridge, 29 chains W. of mile-post No. 222 from Bombay.	884·465*	884·659*
$\frac{2}{41}$	BM.22 / 46 P	49·0	B.○M.	On sixth step from bottom leading up to Maruti's temple near Bhadakamba gate of Bhadgaon.	854·996*	855·184*
$\frac{3}{41}$	BM.23 / 46 P	52·7	↑	On S. parapet of aqueduct No. 39, in mile No. 24 of Girna Canal.	936·623*	936·829*

* Determined by single levelling in 1882-83.

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
4/41	BM.24/46 P	52·9	↑ On S. parapet of aqueduct No. 38, in mile No. 23 of Girna Canal.	936·944*	937·150*
5/41	BM.25/46 P	53·2	↑ On S. parapet of aqueduct in mile No. 28 of Girna Canal.	934·656*	934·862*
6/41	BM.26/46 P	55·3	On top of rectangular protecting pillar of Valvadi G.T. Survey Hill Station, lat. 20° 44′ 27″·73, long. 75° 11′ 7″·12. A principal station of Khanpisura Meridional Series. (For full description *see* Synoptical Volume).	1127·451*	1127·699*
42	BM.27/46 P	45·5	B.O.M. On stone coping at centre of N. parapet of bridge, 2 chains W. of mile-post No. 223 from Bombay.	892·360	892·555
43	BM.28/46 P	46·9	B.O.M. On stone coping at E. end of S. parapet of bridge ½ mile W. of Galan Railway Station.	912·372	912·572
44	BM.29/46 P	47·3	Rail opposite booking office at Galan Railway Station.	913·033	913·233
45	BM 30/46 P	47·3	G.T.S. B.M. □ at Galan Railway Station. Embedded near N.W. corner of station master's quarters, 3 inches below ground level, 5 feet N. of N.W. corner of verandah of station master's house, and 72 feet S.E. of S.E. corner of booking office.	916·698	916·899
46	BM 31/46 P	47·4	B.O.M. On 2nd step from bottom leading up to station platform at Galan Railway Station.	913·925	914·125
47	BM.32/46 P	49·7	B.O.M. On centre of S. parapet of bridge, 10 chains E. N.E. of mile-post No. 227 from Bombay.	886·989	887·182
48	BM.33/46 P	53·3	B.O.M. On stone coping of W. parapet of culvert about 20 chains N. of level crossing No. 130, and 18 chains S.S.W. of mile-post No. 231 from Bombay.	859·302	859·488
49	BM.34/46 P	53·9	G.T.S. B.M. □ at Pachora Railway Station. Embedded in down platform in front of booking office door, 6 inches below level of platform, 14 feet from B.M. No. 50, 17 feet from S. corner of building, and 14 feet from centre of booking office doorway.	856·167	856·351
50	BM.35/46 P	53·9	B.O.M. On platform coping in front of booking office at Pachora Railway Station.	856·194	856·378
51	BM 36/46 P	55·2	B.O.M. On W. parapet of bridge, 26 chains S. of mile-post No. 233 from Bombay.	827·978	828·155
52	BM 37/46 P	57·6	B.O.M. On E. end of pier of bridge, 8 chains N. of mile-post No. 235 from Bombay.	794·582	794·751

* Determined by single levelling in 1882-83.

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
53	BM.38 / 46 P	59·4	B.O.M. On N. pilaster cap of E. abutment of bridge over Bola river near Duskela village, 11 chains W. of mile-post No. 237 from Bombay.	798·840	799·009
54	BM 39 / 46 P	61·7	B.O.M. On N.E. end of N.W. parapet of bridge, 17 chains N E. of mile-post No. 239 from Bombay.	796·570	796·738
55	BM.40 / 46 P	63·1	G.T.S. B.M. □ at Maheji Railway Station. Embedded in down platform 6 inches below level of same; 18 feet from centre of door of booking office, 28 feet W. of B.M No. 56, 21 feet from S.E. corner of station building, and 29 feet from N E. corner.	795·223	795·391
56	BM.41 / 46 P	63·1	B.O.M. On platform coping opposite booking office at Maheji Railway Station.	794·998	795·166
57	BM 42 / 46 P	65·4	B.O.M. On stone cap at E. end of S abutment of bridge, 13 chains S. of mile-post No. 243 from Bombay.	758·122	758·280
58	BM.43 / 46 P	70·4	G.T.S. B.M. □ at Mhasavad Railway Station Embedded in down platform in front of booking office door, 4 inches below level of platform; 16 feet from door of booking office, 12 feet from B.M. No 59, 19 feet from S.E. corner of station building, and 37 feet from N.E. corner.	720·002	720·149
59	BM.44 / 46 P	70·4	B.O.M. On platform coping opposite booking office at Mhasavad Railway Station.	719·991	720·138
60	BM 45 / 46 P	73·2	B.O.M. On N W. pilaster cap of S.W. abutment of bridge over Kurkund river.	682·405	682·543
61	BM 46 / 46 P	75·3	B.M. ○ On coping of E. parapet of bridge, 20 chains S. of mile-post No. 253 from Bombay.	683·450	683·587
1/61	BM 47 / 46 P	77·0	B.O.M. On bottom step leading up to Maruti's temple E. of Shirsoli village.	719·997*	720·142*
2/61	BM.48 / 46 P	83·8	On mark-stone on upper surface of platform of Dhanvar G.T. Survey Hill Station, lat. 20° 53′ 3″·31, long. 75° 36′ 2″·43. A principal station of Khanpisura Meridional Series. (For full description *see* Synoptical Volume).	1164·515*	1164·749*
62	BM.49 / 46 P	76·5	B O.M. On coping at W. side of well, about 2 chains N.E of Shirsoli Railway Station.	692·543	692·682
63	BM.50 / 46 P	78·0	B.O.M. On N.W. parapet of bridge near telegraph post No. 255/10, and 43 chains S.W. of mile-post No. 256 from Bombay.	660·721	660·853

* Determined by single levelling in 1882-83.

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
64		BM.51 / 46 P	79·0	B.O.M. On N. end of W. parapet of bridge near telegraph post No. 256/10, and 33 chains N. of mile-post No. 256 from Bombay.	673·388	673·521
65		BM.52 / 46 P	80·6	B.O.M. On centre of W. parapet of bridge about 6 chains N. of mile-post No. 258 from Bombay.	664·239	664·370
66		BM.40 / 46 O	82·6	B.O.M. On S.W. end of N.W. parapet of bridge, 2 chains N.E. of mile-post No. 260 from Bombay.	685·597	685·731
67		BM.41 / 46 O	83·5	B.O.M. On platform coping opposite booking office at Jalgaon Railway Station.	690·341	690·476
68		BM.42 / 46 O	83·5	G.T.S. B.M. □ at Jalgaon Railway Station. Embedded in down platform at S.E. corner of station building, flush with stone pavement, 6 feet S.W. of S.E. corner of building, 9 feet from centre of E. window of waiting room, and 33 feet N. of edge of platform.	690·673	690·808
69		BM.43 / 46 O	84·1	B.O.M. On S. pilaster cap of W. abutment of bridge near up distant semaphore, of Jalgaon Railway Station and 36 chains W. of mile-post No. 262 from Bombay.	682·992	683·125
70		BM.44 / 46 O	85·3	B.O.M. On W. end of N. parapet of bridge near telegraph post No. 262/18, and about 20 chains W. of mile-post No. 263 from Bombay.	675·109	675·241
71		BM.45 / 46 O	87·4	B.O.M. On E. end of N. parapet of bridge opposite telegraph post No. 264/21, and 7 chains W. of mile-post No. 265 from Bombay.	688·659	688·793
72		BM.46 / 46 O	89·2	B.O.M. On N. end of E. abutment of culvert near telegraph post No. 266/15, and 30 chains W. of mile-post No. 267 from Bombay.	685·934	686·068
73		BM.47 / 46 O	90·7	B.O.M. On platform coping opposite booking office at Bhadli Railway Station.	684·671	684·805
74		BM.48 / 46 O	91·9	B.O.M. On N. end of W. pier of culvert, 18 inches above paved bed, between telegraph posts Nos. 269/9 and 269/10, and 29 chains E. of mile-post No. 269 from Bombay.	677·092	677·224
75		BM.49 / 46 O	94·0	B.O.M. On S.W. end of N.W. parapet of bridge, between telegraph posts Nos. 271/11 and 271/12, and 38 chains N.E. of mile-post No. 271 from Bombay.	660·604	660·733

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
76	BM.50 / 46 O	96·9	B.O.M. On E. end of N. parapet of bridge, near telegraph post No. $\frac{273}{14}$, and 33 chains W. of mile-post No. 274 from Bombay.	688·808	688·942
77	BM.51 / 46 O	97·4	B.O.M. On N.E. end of S.E. parapet of bridge, near telegraph post No. $\frac{274}{22}$, and 9 chains S.W. of mile-post No. 275 from Bombay.	680·681	680·813
78	BM 52 / 46 O	98·4	G.T.S. B.M. □ at Bhusaval Railway Station. Embedded in W. end of up platform, flush with stone pavement; on left of entrance to store-room, between it and 4th iron pillar from W., 10 feet from N.W. corner of building, and 29 feet from edge of platform.	679·335	679·466
79	BM 53 / 46 O	98·5	B.O.M. On platform coping in front of booking office at Bhusaval Railway Station.	678·890	679·021
80	BM.54 / 46 O	99·2	B.O.M. On S. pilaster cap of E. abutment of bridge, about 6 chains N.E. of new goods shed at Bhusaval Railway Station, and 24 chains W. of mile-post No. 277 from Bombay.	677·752	677·883
81	BM 55 / 46 O	101·6	B.O.M. On S.W. parapet of culvert, near telegraph post No. $\frac{279}{2}$, opposite Phekri village and 8 chains S.E. of mile-post No. 279 from Bombay.	692·229	692·363
82	BM.56 / 46 O	102·9	G.T.S. ○ B.M. On S.W. pilaster cap of N.W. abutment of culvert at telegraph post No. $\frac{280}{8}$, and 30 chains S.E. of mile-post No. 280 from Bombay.	715·786	715·925
83	BM.57 / 46 O	103·9	G.T.S. ○ B.M. On S.E. end of S.W. parapet of bridge, 36 chains S.E. of mile-post No. 281 from Bombay.	709·500	709·638
84	BM.58 / 46 O	105·5	B.O.M. On S.W. parapet of culvert at mile-post No. 283 from Bombay.	734·494	734·637
85	BM.59 / 46 O	106·4	G.T.S. B.M. □ at Varangaon Railway Station. Embedded in down platform, 6 inches below level of same, 11 feet from front door of booking office, 14 feet from S.E. corner of station building, and 10 feet from B.M. No. 86.	724·965	725·107
86	BM.60 / 46 O	106·4	G.T.S. ○ B.M. On platform coping in front of booking office at Varangaon Railway Station.	725·083	725·225
87	BM.61 / 46 O	107·1	G.T.S. ○ B.M. On coping of S.W. parapet of bridge, between telegraph posts Nos. $\frac{284}{11}$ and $\frac{284}{12}$, and 32 chains N.W. of mile-post No. 285 from Bombay.	732·034	732·177

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
88	BM.53 / 46 P	108·1	G.T.S. ○ B.M. On W. pilaster cap of culvert, between telegraph posts Nos. 285/12 and 285/13, and 29 chains N.W. of mile-post No. 286. from Bombay	736·001	736·146
89	BM.54 / 46 P	109·1	G.T.S. ○ B.M. On N.E. parapet of bridge, between telegraph posts Nos. 286/11 and 286/12, and 33 chains N.W. of mile-post No. 287 from Bombay.	744·675	744·822
90	BM.55 / 46 P	110·4	G.T.S. ○ B.M. On N.E. parapet of bridge, 9 chains N.W. of mile-post No. 288 from Bombay.	777·828	777·982
91	BM.56 / 46 P	111·3	G.T.S. ○ B.M. On N. parapet of bridge, 18 chains W. of mile-post No. 289 from Bombay.	808·761	808·922
92	BM.57 / 46 P	112·2	G.T.S. ○ B.M. On S.W. parapet of bridge, between telegraph posts Nos. 289/13 and 289/14, and 26 chains N.W. of mile-post No. 290 from Bombay.	840·905	841·072
93	BM 58 / 46 P	113·4	G.T.S. ○ B.M. On S.W. parapet of bridge, 10 chains N.W. of mile-post No. 291 from Bombay.	888·703	888·881
94	BM.59 / 46 P	114·4	B.○M. On S.W. parapet of culvert, between telegraph posts Nos. 291/19 and 291/20, and 5 chains N.W. of mile-post No. 292 from Bombay.	931·496	931·682
95	BM.1 / 55 D	115·3	B.○M. On W. parapet of culvert, near telegraph post No. 292/16, and 17 chains N.W. of mile-post No. 293 from Bombay.	965·717	965·911
96	BM.2 / 55 D	116·5	G.T.S. ○ B.M. On S.W. parapet of bridge, near mile-post No. 294 from Bombay.	978·705	978·903
97	BM.3 / 55 D	117·3	G.T.S. ○ B.M. On platform coping opposite booking office at Nadgaon Railway Station.	960·337	960·531
98	BM.4 / 55 D	117·3	G.T.S. B.M. □ at Nadgaon Railway Station. Embedded in up platform, 6 inches below level of same, between station building and signaller's quarters, 7 feet from E. corner of station building, and N. corner of signaller's quarters, 13 feet from edge of platform, and 34 feet from telegraph post No. 294/17.	960·055	960·249
99	BM.5 / 55 D	118·5	G.T.S. ○ B.M. On coping at S. end of E. abutment of bridge, 2 chains W. of mile-post No. 296 from Bombay.	930·995	931·183

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
100	BM.6/55 D	119·6	G.T.S. ○ B.M.	On S. parapet of bridge, 9 chains E. of mile-post No. 297 from Bombay.	923·791	923·978
101	BM.7/55 D	120·5	G.T.S. ○ B.M.	On S pilaster cap of E. abutment of bridge, near mile-post No. 298 from Bombay.	906·230	906·414
102	BM.8/55 D	121·3	G.T.S. ○ B.M.	On S. end of E. abutment of bridge, between telegraph posts Nos. 298/17 and 298/18, and 18 chains W. of mile-post No. 299 from Bombay.	885·888	886·068
103	BM.9/55 D	122·5	B.O.M.	On S. parapet of culvert, 1 chain S.W. of mile-post No. 300 from Bombay.	872·786	872·962
104	BM 10/55 D	123·9	G.T.S. ○ B.M.	On centre of N W. parapet of culvert, near up distant semaphore of Khamkhed Railway Station.	832·658	832·826
105	BM.11/55 D	124·0	G.T.S. B M. □	at Khamkhed Railway Station. Embedded in front of station, 1 foot below ground level; 17 feet from N.W. corner of station building, 28 feet from N.E. corner, 15 feet from door of booking office, and 55 feet from telegraph post No. 301/12.	829·767	829·935
106	BM.12/55 D	124·5	G.T.S. ○ B.M.	On S. end of E abutment of bridge, 2 chains E. of mile-post No. 302 from Bombay.	830·769	830·937
107	BM 13/55 D	126·0	G.T.S. ○ B.M.	On S. end of E. abutment of bridge, between telegraph posts Nos. 303/10 and 303/11, and 35 chains W. of mile-post No. 304 from Bombay.	815·785	815·950
108	BM.14/55 D	126·7	B.O.M.	On W. end of S. parapet of culvert, 15 chains E. of mile-post No. 304 from Bombay.	820·167	820·333
109	BM.15/55 D	127·9	B.O.M.	On S. parapet of culvert at telegraph post No. 305/9, and 37 chains E. of mile-post No. 305 from Bombay.	830·001	830·169
110	BM.16/55 D	129·1	G.T.S. ○ B.M.	On E. end of S. parapet of bridge over Nalganga river, 28 chains W. of mile-post No. 307 from Bombay.	823·164	823·331
111	BM.17/55 D	129·6	G.T.S. B.M. □	at Malkapur Railway Station. Embedded in up platform, 10 inches below level of same, in front of door of booking office, 19 feet from centre of doorway, 68 feet from N.W. corner of station building, 48 feet from N.E. corner, and 15 feet from B.M. No. 112.	817·883	818·049
112	BM 18/55 D	129·6	G.T.S. ○ B.M.	On coping of up platform opposite window of booking office at Malkapur Railway Station.	818·238	818·404

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon		Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
113		BM.19 / 55 D	130·4	G.T.S. ○ B.M.	On W. end of S. parapet of bridge, 4 chains W. of mile-post No. 308 from Bombay.	808·800	808·964
	a / 113	BM.20 / 55 D	131·4	B.○M.	On S. end of W. abutment of bridge, 3 chains S.W. of mile-post No. 309 from Bombay.	805·102	805·265
114		BM.21 / 55 D	131·9	G.T.S. ○ B.M.	On S. pilaster cap of E. abutment of bridge at telegraph post No. 309/10, and 39 chains E. of mile-post No. 309 from Bombay.	806·203	806·367
115		BM.22 / 55 D	133·3	G.T.S. ○ B.M.	On S. parapet of culvert, near telegraph post No. 311/16, and 14 chains W. of mile-post No. 311 from Bombay.	809·591	809·755
116		BM.23 / 55 D	133·9	G.T.S. ○ B.M.	On S. end of W. abutment of bridge, near telegraph post No. 311/11, and midway between mile-posts Nos. 311 and 312 from Bombay.	820·389	820·555
117		BM.24 / 55 D	135·1	G.T.S. ○ B.M.	On S. parapet of culvert at telegraph post No. 312/14, and 24 chains W. of mile-post No. 313 from Bombay.	828·230	828·398
118		BM.25 / 55 D	136·0	B.○M.	On centre of S. parapet of culvert, between telegraph posts Nos. 313/11 and 313/12, and 33 chains W. of mile-post No. 314 from Bombay.	813·744	813·909
119		BM 26 / 55 D	136·6	G.T.S. ○ B.M.	On S. pilaster cap of E. abutment of bridge at telegraph post No. 314/4, and 15 chains E. of mile-post No. 314 from Bombay.	810·102	810·266
120		BM.27 / 55 D	137·9	G.T.S. ○ B.M.	at Bisva Bridge. On S. end of W. abutment, at W. face of pilaster cap, 30 chains W. of Bisva Railway Station.	814·421	814·586
121		BM.28 / 55 D	138·2	G.T.S. B.M. □	at Bisva Bridge Railway Station. Embedded in front of door of booking office, 10 inches below ground level; 17 feet from centre of doorway of booking office, 18 feet from N.W. corner of station building, 29 feet from N.E. corner, and 40 feet from home semaphore.	817·629	817·795
122		BM.29 / 55 D	138·6	G.T.S. ○ B.M.	On W. end of S. parapet of bridge, near telegraph post No. 316/4, and 12 chains E. of mile-post No. 316 from Bombay.	819·019	819·185
123		BM.30 / 55 D	139·3	B.○M.	On S. parapet of culvert, 10 chains W. of mile-post No. 317 from Bombay.	816·357	816·523

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
124	BM 31 / 55 D	139·9	G T S. ○ B.M.	On S. pilaster cap of E. abutment of bridge at telegraph post No. 317/10, and 44 chains W. of mile-post No. 318 from Bombay.	816·501	816·668
125	BM 32 / 55 D	141·1	G.T.S. ○ B.M.	On S. end of W. abutment, at N. face of pilaster cap of bridge, between telegraph posts Nos. 318/15 and 318/16, and 23 chains W. of mile-post No. 319 from Bombay.	801·598	801·762
126	BM 33 / 55 D	142·3	B.○M.	On S. parapet of culvert, near telegraph post No. 319/17, and 9 chains W. of mile-post No. 320 from Bombay.	821·203	821·370
127	BM 34 / 55 D	143·6	G.T S. ○ B.M.	On N.E. parapet of bridge, between telegraph posts Nos. 321/5 and 321/6, and 19 chains S.E. of mile-post No. 321 from Bombay.	840·686	840·858
128	BM.35 / 55 D	144·4	G T.S. ○ B M.	On S. parapet of culvert, 2 chains W. of mile-post No. 322 from Bombay.	848·094	848·268
129	BM 36 / 55 D	145·5	G.T.S. ○ B.M.	On N.E. parapet of culvert, 7 chains S.E. of mile-post No. 323 from Bombay.	857·417	857·594
130	BM.37 / 55 D	146·3	G.T S. ○ B M.	On S.W. pilaster cap of N.W. abutment of bridge, 7 chains N.W. of mile-post No. 324 from Bombay.	864·661	864·839
131	BM 38 / 55 D	146·8	G.T.S. ○ B M.	On coping of up platform opposite booking office at Nandura Railway Station.	867·830	868·010
132	BM 39 / 55 D	146·8	G.T.S. B M. □	at Nandura Railway Station. Embedded in up platform in front of door of booking office, 6 inches below platform level, 17 feet from centre of doorway of booking office, 68 feet from N.W. corner of station building, 47 feet from N.E. corner and 11 feet from B.M. No 131.	867·475	867·654
133	BM.40 / 55 D	147·4	G.T.S. ○ B.M.	On S.W. pilaster cap of bridge, near mile-post No. 325 from Bombay.	865·573	865·752
134	BM.41 / 55 D	147·7	G T.S. ○ B.M.	On N. end of E. abutment, at S. face of N.E. pilaster cap of bridge, 28 chains E. of mile-post No. 325 from Bombay.	864·020	864·199
135	BM.42 / 55 D	148·9	G.T.S. ○ B.M.	On S. parapet of culvert, near telegraph post No. 326/10, midway between mile-posts Nos. 326 and 327 from Bombay.	844·713	844·888

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon		Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
136		BM.43 / 55 D	149·9	G.T.S. ○ B.M.	On N. end of E. abutment, at S. face of pilaster cap of bridge, between telegraph posts Nos. 327/9 and 327/10, and 39 chains E. of mile-post No. 327 from Bombay.	837·414	837·587
137		BM.44 / 55 D	150·8	G.T.S. ○ B.M.	On S. end of E. abutment, at N. face of S.E. pilaster cap of bridge at telegraph post No. 328/7, and 33 chains E. of mile-post No. 328 from Bombay.	840·553	840·728
138		BM.45 / 55 D	152·0	G.T.S. ○ B.M.	On E. end of S. parapet of culvert at telegraph post No. 329/13, and 31 chains W. of mile-post No. 330 from Bombay.	850·876	851·053
139		BM.46 / 55 D	152·8	G.T.S. ○ B.M.	On E. end of N. parapet of culvert, between telegraph posts Nos. 330/9 and 330/10, and 37 chains E. of mile-post No. 330 from Bombay.	864·109	864·289
140		BM.47 / 55 D	153·6	G.T.S. ○ B.M.	On N. end of E. abutment, at S. face of N.E. pilaster cap of Morna bridge, 14 chains E. of mile-post No. 331 from Bombay.	867·684	867·865
141		BM.48 / 55 D	154·4	G.T.S. B.M. □	at Jalamb Railway Station. Embedded in up platform, in front of booking office door, 6 inches below level of platform, 18 feet from centre of door of booking office, 11 feet from edge of platform, 66 feet from N.E. and 19 feet from N.W. corners of station building, and 85 feet from N.E. corner of reservoir.	888·277	888·462
142		BM.49 / 55 D	154·4	G.T.S. ○ B.M.	On platform coping in front of booking office at Jalamb Railway Station.	888·497	888·682
143		BM.50 / 55 D	155·6	B.O.M.	On centre of S. parapet of bridge, near Jalamb village, 15 chains E. of mile-post No. 333 from Bombay.	859·578	859·757
144		BM.51 / 55 D	156·9	B.O.M.	On N. pilaster cap of E. abutment of bridge at telegraph post No. 334/11, and 37 chains W. of mile-post No. 335 from Bombay.	877·478	877·660
145		BM.52 / 55 D	158·0	B.O.M.	On N. pilaster cap of W. abutment of bridge at telegraph post No. 335/12, and 31 chains W. of mile-post No. 336 from Bombay.	862·430	862·609
146		BM.53 / 55 D	159·5	G.T.S. ○ B.M.	On S. end of E. abutment, at N. face of S.E. pilaster cap of bridge, 4 chains E. of mile-post No. 337 from Bombay.	845·534	845·710

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
147	BM.54/55 D	160·4	B.O.M.	On S. parapet of culvert at mile-post No. 338 from Bombay.	857·241	857·419
148	BM.55/55 D	160·7	G.T.S. ○ B.M.	On E. end of S. parapet of bridge at telegraph post No. 338/6, and 22 chains E. of mile-post No. 338 from Bombay.	871·067	871·248
149	BM.56/55 D	162·1	G.T.S. B.M. □	at Shegaon Railway Station. Embedded in station verandah, flush with stone pavement, in front of window of gentlemen's waiting room, 10 inches from wall, and 14 feet from edge of platform.	911·981	912·172
150	BM.57/55 D	162·1	G.T.S. ○ B.M.	On platform coping in front of booking office at Shegaon Railway Station.	911·690	911.881
151	BM 58/55 D	163·1	G.T.S. ○ B.M.	On centre of N.E. parapet of bridge, between telegraph posts Nos. 340/14 and 340/15, and 24 chains N.W. of mile-post No. 341 from Bombay.	889·463	889·649
152	BM.59/55 D	164·4	B.O.M.	On N.W. end of N E parapet of culvert, 1 chain E. of mile-post No. 342 from Bombay.	923·487	923·681
153	BM 60/55 D	165·2	B.O.M.	On S.E. end of S.W. parapet of bridge, between telegraph posts Nos. 342/15 and 342/16, and 19 chains N.W. of mile-post No. 343 from Bombay.	918·720	918·913
154	BM.61/55 D	166·5	G T S. ○ B.M.	On centre of S.W. parapet of bridge, 9 chains S.E. of mile-post No. 344 from Bombay.	897·306	897·495
155	BM.62/55 D	167·2	G T.S. ○ B.M.	On S.W. end of pier, about 2 feet from N.E. face of pilaster cap of bridge, between telegraph posts Nos. 344/15 and 344/16, and 15 chains S.E. of Nagjhari Railway Station.	885·142	885·330
a/155	BM.63/55 D	168·1	B.O.M.	On S. abutment and in line with iron railings of Nagjhari bridge over Man river, midway between mile-posts Nos. 345 and 346 from Bombay.	876·298	876·484
156	BM.64/55 D	168·6	B.O.M.	On E. parapet of culvert, 12 chains S. of mile-post No. 346 from Bombay.	887·008	887·197
157	BM 65/55 D	169·3	G.T.S. ○ B.M.	On S.W. parapet of bridge at telegraph post No. 346/18, and 10 chains N.W. of mile-post No. 347 from Bombay.	894·606	894·797
158	BM.66/55 D	170·3	B.O.M.	On S. pilaster cap of E. abutment of bridge at telegraph post No. 347/17, and 13 chains W. of mile-post No. 348 from Bombay.	903·020	903·213

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
159	BM.67 / 55 D	171·3	G.T.S. ○ B.M. On S. end of W. abutment of culvert, between telegraph posts Nos. 348/17 and 348/18, and 9 chains W. of mile-post No. 349 from Bombay.	918·718	918·915
160	BM.68 / 55 D	172·2	B.○M. On S. end of E. abutment, at N. face of S.E. pilaster cap of bridge at telegraph post No. 349/17, and 14 chains W. of mile-post No. 350 from Bombay.	913·034	913·229
161	BM.69 / 55 D	172·8	G.T.S. ○ B.M. On platform coping in front of booking office at Paras Railway Station.	917·953	918·149
162	BM.70 / 55 D	172·8	G.T.S. B.M. □ at Paras Railway Station. Embedded in platform, in front of door of booking office, a few inches below platform level, 10 feet from centre of door of booking office, 11 feet from N.W. and 26 feet from N.E. corners of station building, 38 feet from W. face of base of home semaphore, and 8 feet from B.M. No. 161.	917·307	917·503
163	BM.71 / 55 D	173·1	G.T.S. ○ B.M. On centre of N. pilaster cap of E. abutment of bridge, between telegraph posts Nos. 350/15 and 350/16, 25 chains E. of Paras Railway Station, and 23 chains W. of mile-post No. 351 from Bombay.	914·682	914·878
164	BM.72 / 55 D	174·2	B.○M. On E. end of S. pilaster cap of W. abutment of bridge, between telegraph posts Nos. 351/15 and 351/16, and 20 chains W. of mile-post No. 352 from Bombay.	922·629	922·827
165	BM.73 / 55 D	175·1	G.T.S. ○ B.M. On S. parapet of bridge, between telegraph posts Nos. 352/13 and 352/14, and 27 chains W. of mile-post No. 353 from Bombay.	949·639	949·842
166	BM.74 / 55 D	176·3	G.T.S. ○ B.M. On N. parapet, over 1st arch from W., of bridge, 10 chains W. of mile-post No. 354 from Bombay.	973·455	973·663
167	BM.75 / 55 D	177·3	G.T.S. ○ B.M. On S. parapet of bridge, 8 chains W. of mile-post No. 355 from Bombay.	978·544	978·754
168	BM.76 / 55 D	178·5	B.○M. On centre of S. parapet of bridge, 5 chains E. of mile-post No. 356 from Bombay.	962·735	962·941
169	BM.77 / 55 D	178·6	B.○M. On N. parapet of culvert, between telegraph posts Nos. 356/4 and 356/5, and 18 chains E.. of mile-post No. 356 from Bombay.	958·630	958·835

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
170	BM.78 / 55 D	179·3	G.T.S. ○ B.M. On W. end of N. parapet of culvert, between telegraph posts Nos. 356/18 and 356/19, and 6 chains W. of mile-post No. 357 from Bombay.	947·144	947·347
171	BM.79 / 55 D	180·1	B.○M. On N. parapet, over E. arch, of bridge, near telegraph post No. 357/14, and 22 chains W. of mile-post No. 358 from Bombay.	926·820	927·018
172	BM 80 / 55 D	181·5	B.○M. On W. end of N. parapet of bridge, near telegraph post No. 359/3, and 11 chains E. of mile-post No. 359 from Bombay.	903·559	903·752
173	BM.81 / 55 D	181·9	B.○M. On W. end of N. wall of W. abutment of bridge over a stream, near telegraph post No. 359/10, and 36 chains W. of mile-post No. 360 from Bombay.	905·072	905·266
174	BM 82 / 55 D	182·9	G.T.S. ○ B.M. On N. wall of E. abutment of bridge at telegraph post No. 360/11, and 38 chains W. of mile-post No. 361 from Bombay.	905·284	905·478
175	BM 83 / 55 D	183·9	G.T.S. ○ B.M. On S. parapet, 33 feet from E. end, of bridge over Morna river, between telegraph posts Nos. 361/7 and 361/8, and 37 chains E. of mile-post No. 361 from Bombay.	906·588	906·782
176	BM 1 / 55 H	185·2	G.T.S. ○ B.M. at Akola Railway Station. On platform coping opposite B.M. No. 177.	919·433	919·630
177	BM.2 / 55 H	185·2	G.T.S. B.M. □ at Akola Railway Station. Embedded in station verandah, between door of booking office and window of ladies' waiting room, flush with stone pavement, 10 inches from wall, and 15 feet from edge of platform.	919·711	919·908
1/177	BM.3 / 55 H	186·4	G.T.S. Standard Bench Mark 1908 at Akola. Situated in compound of circuit house and enclosed by railings 11 feet square. The following are distances and bearings of surrounding objects from bench-mark:—N.E. corner of circuit house 210 feet, 252°; N.E. corner of compound 32 feet, 218°; S.E. corner of menials' quarters 152 feet, and church steeple (in compound) bears 260° from bench-mark.	952·534	952·738
a/177	BM.4 / 55 H	185·5	G.T.S. ○ B.M. On front verandah flooring, about centre of building, a few inches from wall, at Session Judge's Court House, Akola.	926·116	926·314

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
	b/177	BM 5/55 H	*miles* 186·3	G.T.S. ○ B.M. On flooring of back verandah near wall of southernmost room at Circuit House, Akola.	*feet* 953·276	*feet* 953·480
178		BM.6/55 H	185·6	G.T.S. ○ B.M. On E. end of N. parapet of bridge, between telegraph posts Nos. 363/4 and 363/5, and 17 chains E. of mile-post No. 363 from Bombay.	922·685	922·883
179		BM 7/55 H	186·5	G.T.S. ○ B.M. On S. parapet, over 3rd pier from W., of bridge, near telegraph post No. 364/1, and 6 chains E. of mile-post No. 364 from Bombay.	913·325	913·520
180		BM.8/55 H	188·0	G.T.S. ○ B.M. On W. end of S. parapet of bridge, near telegraph post No. 365/12, and 31 chains W. of mile-post No. 366 from Bombay.	939·155	939·356
181		BM.9/55 H	189·0	G.T.S. ○ B.M. On centre of N. parapet of bridge, near telegraph post No. 366/13, and 30 chains W. of mile-post No. 367 from Bombay.	956·082	956.287
182		BM.10/55 H	189·9	G.T.S. B.M. □ at Havelkhera Railway Station. Embedded in station verandah, between door of booking office and S.W. corner of building, 10 inches below ground level, 4 feet from W. end of door of booking office and S.W. corner of station building, 2 feet from wall, and 52 feet from N.E. corner of base of home semaphore.	967·198	967·405
183		BM.11/55 H	189·9	Rail opposite booking office at Havelkhera Railway Station.	964·871	965·078
184		BM.12/55 H	191·2	B.○M. On N. pilaster cap of W. abutment of bridge at telegraph post No. 368/17, and 14 chains W. of mile-post No. 369 from Bombay.	925·811	926·009
185		BM.13/55 H	192·2	G.T.S. ○ B.M. On N. parapet, over W. arch, of bridge, between telegraph posts Nos. 369/14 and 369/15, and 19 chains W. of mile-post No. 370 from Bombay.	928·348	928·547
186		BM.14/55 H	193·5	G.T.S. ○ B.M. On N. parapet, over 3rd arch from W., of bridge, 7 chains E. of mile-post No. 371 from Bombay.	925·361	925·558
187		BM.15/55 H	194·5	G.T.S. ○ B.M. On S. parapet of bridge, 12 chains E. of mile-post No. 372 from Bombay.	955·409	955·612

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
188	BM.16 / 55 H	196·0	G.T.S. ○ B.M. On W. end of S. parapet of bridge, near telegraph post No. 373/12, and 31 chains W. of mile-post No. 374 from Bombay.	975·915	976·123
189		196·5	Destroyed.	989·802	990·013
190	BM 17 / 55 H	197·5	G.T.S. ○ B.M. On S. parapet, over 2nd arch from W., of bridge, 7 chains E. of mile-post No. 375 from Bombay.	962·453	962·658
191	BM.18 / 55 H	197·9	B.O.M. On centre of S. parapet of bridge at telegraph post No. 375/10, and 38 chains W. of mile-post No. 376 from Bombay.	968·612	968·818
192	BM.19 / 55 H	200·5	G.T.S. ○ B.M. On W. end of N. parapet of bridge, near telegraph post No. 378/3, and 10 chains E. of mile-post No. 378 from Bombay.	960·378	960·582
193	BM 20 / 55 H	201·4	G.T.S. ○ B.M. On N.E. end of S.E. abutment of bridge over Kathe Purna river, and 6 chains S.E. of mile-post No. 379 from Bombay.	948·094	948·296
194		201·7	Destroyed.	951·948	952·151
195	BM 21 / 55 H	203·6	B.O.M. On N. pilaster cap of W. abutment of bridge, between telegraph posts Nos. 381/4 and 381/5, and 18 chains E. of mile-post No. 381 from Bombay.	945·175	945·376
196	BM.22 / 55 H	204·2	G.T.S. ○ B.M. On W. end of S. parapet of culvert, near telegraph post No. 381/16, and 15 chains W. of mile-post No. 382 from Bombay.	940·003	940·203
197	BM.23 / 55 H	205·2	B.O.M. On N. pilaster cap of W. abutment of bridge, 14 chains W. of mile-post No. 383 from Bombay.	942·132	942·333
198	BM 24 / 55 H	206·1	G.T.S. ○ B.M. On N. parapet of culvert, between telegraph posts Nos. 383/14 and 383/15, and 24 chains W. of mile-post No. 384 from Bombay.	942·757	942·958
199	BM.25 / 55 H	206·6	B.O.M. On N. pilaster cap of E. abutment of bridge, between telegraph posts Nos. 384/3 and 384/4, and 16 chains E. of mile-post No. 384 from Bombay.	949·208	949·410
200	BM.26 / 55 H	208·3	G.T.S. ○ B.M. On platform coping in front of window of booking office at Murtajapur Railway Station.	989·120	989·331

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
201	BM.27 / 55 H	208·3	G.T.S. B.M. □ at Murtajapur Railway Station. Embedded in centre of station verandah, 2 feet from wall, 6 inches below platform level, 23 feet from N.E. and N.W. corners of station building, and 14 feet from B.M. No. 200.	989·131	989·342
202	BM.28 / 55 H	208·6	G.T.S. ○ B.M. On S. parapet, over W. arch, of bridge, near telegraph post No. $\frac{326}{5}$, and 19 chains E. of mile-post No. 386 from Bombay.	982·556	982·764
203	BM.29 / 55 H	209·2	G.T.S. ○ B.M. On E. end of N. parapet of culvert, between telegraph posts Nos. $\frac{386}{16}$ and $\frac{386}{17}$, and 15 chains W. of mile-post No. 387 from Bombay.	973·051	973·257
204	BM.30 / 55 H	210·6	G.T.S. ○ B.M. On N. parapet, between 2nd and 3rd arches from E. end, of bridge, near telegraph post No. $\frac{388}{3}$, and 15 chains E. of mile-post No. 388 from Bombay.	988·175	988·384
205	BM.31 / 55 H	211·5	G.T.S. ○ B.M. On E. end of S. parapet of bridge, between telegraph posts Nos. $\frac{389}{2}$ and $\frac{389}{3}$, and 11 chains E. of mile-post No. 389 from Bombay.	998·312	998·524
206	BM.32 / 55 H	213·1	B.○M. On N. wall of W. abutment of bridge, between telegraph posts Nos. $\frac{390}{13}$ and $\frac{390}{14}$, and 25 chains W. of mile-post No. 391 from Bombay.	962·256	962·459
207	BM.33 / 55 H	213·3	B.○M. On N. end of E. abutment of Uma bridge, 2 chains W. of mile-post No. 391 from Bombay.	962·195	962·398
208	BM.34 / 55 H	214·1	G.T.S. ○ B.M. On centre of N. parapet of culvert, near telegraph post No. $\frac{391}{14}$, and 22 chains W. of mile-post No. 392 from Bombay.	985·395	985·603
209	BM.35 / 55 H	214·9	G.T.S. ○ B.M. On E. and of S. parapet of bridge, 39 chains E. of mile-post No. 392 from Bombay.	986·586	986·794
210	BM.36 / 55 H	215·8	G.T.S. B.M. □ at Man Railway Station. Embedded in front of door of booking office, 6 inches below ground level; 10 feet from S.E. and 26 feet from S.W. corners of station building, 9 feet from centre of door of booking office and 41 feet from E. face of base of home semaphore.	960·973	961·176
211	BM.37 / 55 H	216·1	G.T.S. ○ B.M. On N. pilaster cap of W. abutment of bridge, near telegraph post No. $\frac{393}{14}$, and ¼ mile E. of Man Railway Station.	958·166	958·368

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
212	BM.38 / 55 H	216·7	B.O.M.	On N. end of W. abutment of bridge over Man river, 29 chains E. of mile-post No. 394 from Bombay.	952·559	952·760
213	BM.39 / 55 H	218·1	B.O.M.	On N. wall of E. abutment of culvert, near telegraph post No. 395/15, and 19 chains W. of mile-post No. 396 from Bombay.	971·104	971·308
214	BM.40 / 55 H	218·4	G.T.S. ○ B.M.	On N. parapet, over 2nd arch from E. end, of bridge, 3 chains E. of mile-post No. 396 from Bombay.	968·658	968·861
215	BM 41 / 55 H	219·1	G.T.S. ○ B.M.	On centre of N.W. parapet of bridge, near telegraph post No. 396/13, and 24 chains S.W. of mile-post No. 397 from Bombay.	980·156	980·362
216	BM.42 / 55 H	220·1	B.O.M.	On N.W. parapet of culvert opposite telegraph post No. 397/15, and 20 chains S.W. of mile-post No. 398 from Bombay.	973·607	973·812
217	BM.43 / 55 H	220·7	G.T.S. ○ B.M.	On N.W. parapet of bridge, 25 chains N.E. of mile-post No. 398 from Bombay.	959·626	959·827
218	BM.44 / 55 H	221·1	B.O.M.	On N.W. pilaster cap of N.E. abutment of bridge, between telegraph posts Nos. 398/11 and 398/12, and 26 chains S.W. of mile-post No. 399 from Bombay.	960·142	960·343
219	BM.45 / 55 H	221·5	B.O.M.	On N.W. end of S.W. abutment of bridge, over Kuram river, 10 chains N.E. of mile-post No. 399 from Bombay.	963·237	963·438
220	BM.46 / 55 H	222·6	B.O.M.	On wing of N.E. abutment at N.E. face of N. pilaster cap of bridge, 18 chains N.E. of mile-post No. 400 from Bombay.	967·719	967·921
221	BM.47 / 55 H	223·3	B.O.M.	On N.W. pilaster cap of N.E. abutment of bridge, 3 chains S.W. of mile-post No. 401 from Bombay.	986·181	986·386
222	BM 48 / 55 H	224·0	G.T.S. B.M. □	at Kuram Railway Station. Embedded in front of door of booking office, 6 inches below ground level, 10 feet from N.W. and 25 feet from N.E. corners of station building, 8 feet from door of booking office, and 48 feet from W. face of base of home semaphore.	1008·924	1009·134
223	BM.49 / 55 H	224·4	G.T.S. ○ B.M.	On centre of N.W. parapet of bridge, 2 chains N.E. of mile-post No. 402 from Bombay.	1007·502	1007·712
224	BM.50 / 55 H	225·2	G.T.S. ○ B.M.	On S.W. end of N.W. parapet of bridge, 10 chains S.W. of mile-post No. 403 from Bombay.	995·013	995·220

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
225	BM.51 / 55 H	225·6	G.T.S. ○ B.M. On N.W. wall of S.W. abutment of bridge, between telegraph posts Nos. $\frac{403}{4}$ and $\frac{403}{5}$, and 16 chains N.E. of mile-post No. 403 from Bombay.	992·131	992·337
226	BM.52 / 55 H	226·8	G.T.S. ○ B.M. On N. parapet of culvert, near telegraph post No. $\frac{404}{10}$, and 38 chains E. of mile-post No. 404 from Bombay.	1016·318	1016·528
227	BM.53 / 55 H	227·8	B.○M. On centre of N.W. parapet of culvert, near telegraph post No. $\frac{405}{9}$, and 37 chains N.E. of mile-post No. 405 from Bombay.	1041·533	1041·749
228	BM.54 / 55 H	228·0	G.T.S. ○ B.M. On N.W. pilaster cap of N.E. abutment of bridge, near telegraph post No. $\frac{405}{14}$, and 24 chains S.W. of mile-post No. 406 from Bombay.	1049·117	1049·334
229	BM.55 / 55 H	228·9	Rail in front of booking office at Takli Railway Station.	1082·723	1082·947
230	BM.56 / 55 H	229·0	G.T.S. B.M. □ at Takli Railway Station. Embedded in station verandah 2 feet from wall, 8 inches below ground level, 14 feet from W. and 20 feet from N. corners of station bnilding.	1085·852	1086·077
231	BM.57 / 55 H	229·5	B.○M. On centre of S.E. parapet of bridge, near telegraph post No. $\frac{407}{2}$, and 9 chains N.E. of mile-post No. 407 from Bombay.	1072·042	1072·264
232	BM.58 / 55 H	230·0	B.○M. On S.E. parapet, between 2nd and 3rd arches from N.E. end, of bridge, between telegraph posts Nos. $\frac{407}{12}$ and $\frac{407}{13}$, and 28 chains S.W. of mile-post No. 408 from Bombay.	1053·662	1053·879
233	BM.59 / 55 H	231·0	B.○M. On S.E. parapet, over 2nd arch from S.W. end, of bridge, between telegraph posts Nos. $\frac{408}{13}$ and $\frac{408}{14}$, and 26 chains S.W. of mile-post No. 409 from Bombay.	1043·644	1043·859
234	BM.60 / 55 H	231·8	G.T.S. ○ B.M. On N.W. parapet of culvert, between telegraph posts Nos. $\frac{409}{7}$ and $\frac{409}{8}$, and 34 chains N.E. of mile-post No. 409 from Bombay.	1064·533	1064·752
235	BM.61 / 55 H	233·2	G.T.S. ○ B.M. On N. end of E. wall of drain, 9 chains W. of mile-post No. 411 from Bombay.	1089·239	1089·462
236	BM.62 / 55 H	234·4	G.T.S. ○ B.M. On platform coping in front of window of booking office at Badnera Railway Station.	1097·526	1097·751

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
237	BM.63 / 55 H	234·4	G.T.S. B.M. □ at Badnera Railway Station. Embedded in centre of station platform, between booking office and 3rd class waiting room, 1 foot from wall, flush with stone pavement, and 19 feet from edge of platform.	1097·728	1097·953
1/237	BM.64 / 55 H	236·7	B.○M. On W. wall of S. abutment of bridge, 10 chains N. of mile-post No. 2 from Badnera.	1120·089	1120·319
2/237	BM.65 / 55 H	239·1	G.T.S. ○ B.M. On E. wall of N. abutment of bridge, 60 chains S. of Amraoti Railway Station.	1119·397	1119·626
3/237	BM.66 / 55 H	239·8	G.T.S. ○ B.M. On platform coping in front of booking office at Amraoti Railway Station.	1118·234	1118·463
4/237	BM.67 / 55 H	241·4	G.T.S. ○ B.M. On edge of pavement, about centre of S. verandah, immediately in front of flight of steps at entrance to Deputy Commissioner's kachahri, Amraoti.	1193·498	1193·743
5/237	BM.68 / 55 H	241·7	G.T.S. ○ B.M. On N. end of step at W. entrance to Protestant church, Amraoti.	1176·660	1176·901
6/237	BM.69 / 55 H	242·3	G.T.S.○ B.M. at Sanitary Commissioner's office, Amraoti. On plinth or basement at S.E. corner of building.	1213·043	1213·292
7/237	BM.70 / 55 H	245·0	On top of rectangular protecting pillar of Badali G. T. Survey Hill Station, lat. 20° 54′ 23″·23 long. 77° 48′ 20″·28. A principal station of Great Arc Meridional Series—Section 18° to 24°. (For full description *see* Synoptical Volume).	1563·266	1563·586
238	BM.71 / 55 H	235·5	B.○M. On N.E. end of N.W. abutment of bridge, 14 chains S.E. of mile-post No. 413 from Bombay.	1125·275	1125·507
239	BM.72 / 55 H	236·2	B.○M. On centre of N.E. parapet of bridge, near telegraph post No. 413/17, and 10 chains N.W. of mile-post No. 414 from Bombay.	1142·403	1142·638
240	BM.73 / 55 H	237·2	B.○M. On S.E. end of N.E. parapet of bridge, between telegraph posts Nos. 414/16 and 414/17, and 14 chains N.W. of mile-post No. 415 from Bombay.	1145·484	1145·721
241	BM 74 / 55 H	238·3	G.T.S. ○ B.M. On N.E. end of N.W. abutment of bridge, near telegraph post No. 415/19, and 4 chains N.W. of mile-post No. 416 from Bombay.	1123.888	1124.122
242	BM.75 / 55 H	238·8	G.T.S. ○ B M. On N.E. end of N.W. abutment of bridge, near telegraph post No. 416/9, and 35 chains S.E. of mile-post No. 416 from Bombay.	1120·083	1120·316

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
243	BM.76 / 55 H	240·3	B.OM. On N. parapet of culvert, 5 chains W. of mile-post No. 418 from Bombay.	1153·133	1153·373
244	BM.77 / 55 H	242·0	B.OM. On N. end of W. abutment of bridge, near telegraph post No. 419/13, and 26 chains W. of mile-post No. 420 from Bombay.	1112·453	1112·684
245	BM.78 / 55 H	242·7	G.T.S. ○ B.M. On N. end of W. abutment of bridge, near telegraph post No. 420/7, and 27 chains E. of mile-post No. 420 from Bombay.	1101·707	1101·936
246	BM.79 / 55 H	243·7	B.OM. On centre of N. parapet of bridge, near telegraph post No. 421/8, and 28 chains E. of mile-post No. 421 from Bombay.	1115·212	1115·444
247	BM.80 / 55 H	244·1	B.OM. On N.E. corner of base of water-crane at Malkhed Railway Station.	1122·248	1122·480
248	BM.81 / 55 H	244·1	B.OM. On N. side of base of home semaphore at Malkhed Railway Station.	1124·024	1124·257
249		244·1	Destroyed.	1124·347	1124·580
250	BM.82 / 55 H	245·2	G.T.S. ○ B.M. On N. end of E. abutment of Malkhed bridge, 14 chains W. of mile-post No. 423 from Bombay.	1098·429	1098·656
251	BM.83 / 55 H	246·3	B.OM. On N. parapet of culvert, ¾ chain E. of mile-post No. 424 from Bombay.	1121·992	1122·224
252	BM.84 / 55 H	247·8	B.OM. On centre of N. parapet of culvert, 39 chains E. of mile-post No. 425 from Bombay.	1090·398	1090·624
253	BM.85 / 55 H	248·3	B.OM. On N. pilaster cap of E. abutment of bridge, 2 chains W. of mile-post No. 426 from Bombay.	1073·674	1073·896
254	BM.86 / 55 H	248·7	G.T.S. ○ B.M. On N. pilaster cap of E. abutment of bridge, 28 chains E. of mile-post No. 426 from Bombay.	1061·344	1061·564
255	BM.87 / 55 H	249·0	B.OM. On centre of N.E. parapet of N.W. abutment of Manjarkhed bridge, 24 chains W. of mile-post No. 427 from Bombay.	1058·448	1058·667
256	BM.88 / 55 H	251·2	G.T.S. ○ B.M. On S.E. end of N.E. parapet of bridge, between telegraph posts Nos. 428/18 and 428/19, and 6 chains N.W. of mile-post No. 429 from Bombay.	1054·788	1055·006
257	BM.89 / 55 H	252·2	G.T.S. B.M. □ at Chandur Railway Station. Embedded in station platform, a few inches below level of same, 6 feet W. of W. face of latrine on which letters B.M. are cut, 7 feet from N.W. and S.W. corners of latrine, and 14 feet N. of home semaphore.	1082·842	1083·067

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic		Topographic				Dynamic	Orthometric
			miles			*feet*	*feet*
258		BM.90 / 55 H	252·2	G.T.S. ○ B.M.	On platform coping opposite booking office at Chandur Railway Station.	1083·101	1083·326
259		BM.36 / 55 L	253·7	G.T.S. ○ B.M.	On W. end of N. parapet of bridge, between telegraph posts Nos. 431/7 and 431/8, and 30 chains E. of mile-post No. 431 from Bombay.	1048·942	1049·161
260		BM 37 / 55 L	254·7	G.T.S. ○ B.M.	On top of N. wall of W. abutment of bridge at telegraph post No. 432/8, and 33 chains E. of mile-post No. 432 from Bombay.	1055·674	1055·895
261		BM.38 / 55 L	255·3	B.M. ○	On W. end of N. parapet of bridge at mile-post No. 433 from Bombay.	1044·842	1045·060
262		BM 39 / 55 L	255·8	B.○M.	On E. end of N. parapet of bridge at telegraph post No. 433/11, and 35 chains W. of mile-post No. 434 from Bombay.	1051·396	1051·616
263		BM.40 / 55 L	256·1	○ B.M.	On N.W. corner of base of home semaphore at Dipore Railway Crossing Station.	1055·642	1055·863
264		BM.41 / 55 L	257·9	G.T.S. ○ B.M.	On E. end of N. parapet of bridge at telegraph post No. 435/13, and 31 chains W. of mile-post No. 436 from Bombay.	1008·207	1008·418
265		BM.42 / 55 L	259·1	G.T.S. ○ B.M.	On E. end of N. parapet of bridge at telegraph post No. 436/16, and 18 chains W. of mile-post No. 437 from Bombay.	1026·722	1026·937
266		BM.43 / 55 L	259·5	G.T.S. ○ B.M.	On W. end of N. parapet of culvert at telegraph post No. 437/6, and 22 chains E. of mile-post No. 437 from Bombay.	1031·169	1031·384
	1/266	BM.44 / 55 L	262·0	On top of rectangular protecting pillar of Wirur G. T. Survey Hill Station, lat. 20° 49′ 20″·17, long. 78° 5′ 7″·99. A principal station of Great Arc Meridional Series—Section 18° to 24°. (For full description *see* Synoptical Volume).		1190·335	1190·584
267		BM.45 / 55 L	260·1	G.T.S. ○ B.M.	On N. end of W. abutment of bridge at telegraph post No. 437/16, and 17 chains W. of mile-post No. 438 from Bombay.	1014·472	1014·684

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
268	BM.46/55 L	261·4	G.T.S. ○ B.M. On N. end of E. abutment of bridge, 9 chains E. of mile-post No. 439 from Bombay.	977·498	977·702
269	BM.47/55 L	262·5	G.T.S. B.M. □ at Dhamangaon Railway Station. Embedded in platform, at W. face of station, 6 inches below platform level, 14 feet from N.W. and 10 feet from S.W. corners of station, 38 feet S. of edge of platform, and 6 feet from W. wall of station on which letters B.M. are cut.	977·254	977·459
270	BM.48/55 L	262·5	G.T.S. ○ B.M. On platform coping opposite booking office at Dhamangaon Railway Station.	977·380	977·585
271	BM.49/55 L	263·0	G.T.S. ○ B.M. On N. wall of W. abutment of bridge at telegraph post No. 440/15, 1 chain W. of Dhamangaon down distant semaphore, and 20 chains W. of mile-post No. 441 from Bombay.	961·154	961·356
272	BM.50/55 L	263·9	G.T.S. ○ B.M. On N. end of E. abutment of bridge at telegraph post No. 441/13, and 29 chains W. of mile-post No. 442 from Bombay.	942·252	942·450
273	BM.51/55 L	264·8	G.T.S. ○ B.M. On N. pilaster cap of W. abutment of bridge, between telegraph posts Nos. 442/11 and 442/12, and 36 chains W. of mile-post No. 443 from Bombay.	929·556	929·751
274	BM.52/55 L	265·5	G.T.S. ○ B.M. On N.E. parapet, over 1st pier from S.E., of bridge, 22 chains S.E. of mile-post No. 443 from Bombay.	920·775	920·968
275	BM.53/55 L	266·6	G.T.S. ○ B.M. On N.E. cap of N.W. abutment of bridge, near telegraph post No. 444/8, and 30 chains S.E. of mile-post No. 444 from Bombay.	932·709	932·905
276	BM.54/55 L	266·9	G.T.S. ○ B.M. On centre of N.E. wall of culvert, between telegraph posts Nos. 444/12 and 444/13, and 31 chains N.W. of mile-post No. 445 from Bombay.	935·758	935·955
277	BM.55/55 L	268·5	G.T.S. B.○M. On coping of N. wall of W. abutment of bridge at telegraph post No. 446/4, and 17 chains E. of mile-post No. 446 from Bombay.	902·647	902·838
278	BM.56/55 L	268·8	G.T.S. ○ B.M. On N.E. side of base of home semaphore at Talni Railway Crossing Station.	906·286	906·477
279	BM.57/55 L	270·2	G.T.S. ○ B.M. On N. wall of culvert, 6 chains W. of mile-post No. 448 from Bombay.	889·383	889·571

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
280	BM.58 / 55 L	271·1	G.T.S. ○ B.M.	On coping of N.E. return wall of S.E. abutment of bridge, 18 chains W. of mile-post No. 449 from Bombay.	872·155	872·340
281	BM.59 / 55 L	271·8	G.T.S. ○ B.M.	On N. cap of E. abutment of culvert at telegraph post No. $\frac{449}{10}$, and 39 chains W. of mile-post No. 450 from Bombay.	877·969	878·156
282	BM.60 / 55 L	272·3	G.T.S. ○ B.M.	On coping of N. wing wall of E. abutment of bridge over Kolat stream, 4 chains E. of mile-post No. 450 from Bombay.	863·878	864·062
283	BM.61 / 55 L	273·8	G.T.S. ○ B.M.	On N. end of E. abutment of bridge, 33 chains W. of mile-post No. 452 from Bombay.	876·311	876·498
284	BM.62 / 55 L	274·2	G.T.S. ○ B.M.	On N. end of W. abutment of Wardha bridge at mile-post No. 452 from Bombay.	876·808	876·995
285	BM.63 / 55 L	274·4	G.T.S. ○ B.M.	On N. end of E. abutment of Wardha bridge.	876·966	877·153
286	BM.64 / 55 L	274·9	G.T.S. ○ B.M.	On platform coping opposite booking office at Pulgaon Railway Station.	885·912	886·101
287	BM 65 / 55 L	274·9	G.T.S. B.M. □	at Pulgaon Railway Station. Embedded in platform, in line with front wall of station building, 8 feet E. of N.E. corner, 6 inches below platform level, 15 feet S. of edge of platform, 34 feet W. of N.W. corner of latrine, 10 feet from easternmost timber pillar of verandah, and 35 feet from home semaphore. The letters B.M. are cut on E. face of station.	885·580	885·769
288	BM.66 / 55 L	275·7	G.T.S. ○ B.M.	On N.W. parapet of bridge, 37 chains N.E. of mile-post No. 453 from Bombay.	902·202	902·394
289	BM 67 / 55 L	276·8	G.T.S. ○ B.M.	On centre of N. parapet of bridge, 38 chains W. of mile-post No. 455 from Bombay.	932·978	933·177
290	BM.68 / 55 L	277·3	G.T.S. ○ B.M.	On E. end of N. parapet of bridge, 2 chains E. of mile-post No. 455 from Bombay.	941·867	942·068
291	BM.69 / 55 L	277·5	○ B.M.	On E. wall of road drain at level crossing, near telegraph post No. $\frac{455}{4}$, and 18 chains E. of mile-post No. 455 from Bombay.	946·522	946·724

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	1/291	BM.70/55 L	279·0	On mark-stone of Nachangaon G. T. Survey Hill Station, lat. 20° 43′ 11″·24, long. 78° 21′ 6″·74. A secondary station of Great Arc Meridional Series—Section 18° to 24°. (For full description *see* Synoptical Volume).	1233·194	1233·457
292		BM.71/55 L	278·3	G.T.S. ○ B.M. On centre of N. parapet of culvert, 5 chains E. of mile-post No. 456 from Bombay.	934·341	934·540
293		BM.72/55 L	279·4	G.T.S. ○ B.M. On centre of N. parapet of culvert, 6 chains E. of mile-post No. 457 from Bombay.	916·288	916·483
294		BM.73/55 L	280·2	G.T.S. ○ B.M. On N. parapet, over 1st pier from W., of bridge over Usoda stream, 7 chains W. of mile-post No. 458 from Bombay.	906·960	907·153
295		BM.74/55 L	281·4	G.T.S. ○ B.M. On W. end of N. parapet of bridge, 13 chains E. of mile-post No. 459 from Bombay.	926·989	927·186
296		BM.75/55 L	282·4	G.T.S. ○ B.M. On centre of N. parapet of culvert, 8 chains E. of mile-post No. 460 from Bombay.	908·690	908·884
297		BM.76/55 L	282·9	G.T.S. ○ B.M. On N. parapet of culvert, 30 chains W. of mile-post No. 461 from Bombay.	895·550	895·741
298		BM.77/55 L	283·2	G.T.S. ○ B.M. On W. end of N. parapet of culvert, 6 chains W. of mile-post No. 461 from Bombay.	888·342	888·531
299		BM.78/55 L	283·9	G.T.S. ○ B.M. On N. end of 1st pier from W., of Usoda bridge at Degaon village, 25 chains W. of mile-post No. 462 from Bombay.	870·666	870·852
300		BM.79/55 L	284·7	G.T.S. ○ B.M. On platform coping opposite booking office at Dehegaon Railway Station.	889·607	889·797
301		BM.80/55 L	284·7	G.T.S. B.M. □ at Dehegaon Railway Station. Embedded in station platform, 6 inches below surface, 16 feet from N.E. corner of station, 17 feet from easternmost timber pillar of verandah, 24 feet from edge of platform, and 61 feet from home semaphore.	889·637	889·827
302		BM.81/55 L	285·9	G.T.S. ○ B.M. On N. cap of W. abutment of Usoda bridge, 30 chains W. of mile-post No. 464 from Bombay.	852·665	852·847
303		BM.82/55 L	287·0	G.T.S. ○ B.M. On W. end of N. parapet of bridge, 18 chains W. of mile-post No. 465 from Bombay.	876·486	876·673
304		BM.83/55 L	287·7	G.T.S. ○ B.M. On centre of N. parapet of bridge, 36 chains E. of mile-post No. 465 from Bombay.	877·631	877·818

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
305	BM 84 / 55 L	288·3	○ B.M. Embedded flush with ground, having following inscription E.C. →, 8·3, 2 feet E. of mile-post No. 466.	869·536	869·721
306	BM.85 / 55 L	288·7	G.T.S. ○ B.M. On N. end of E. abutment of bridge, 36 chains E. of mile-post No. 466 from Bombay.	860·131	860·314
307	BM.86 / 55 L	289·9	G.T.S. ○ B.M. On N. end of W. abutment of bridge, 32 chains W. of mile-post No. 468 from Bombay.	841·511	841·690
308	BM.87 / 55 L	291·0	G.T.S. ○ B.M. On S.W. end of N.W. parapet of culvert, 22 chains S.W. of mile-post No. 469 from Bombay.	856·590	856·772
309	BM 35 / 55 L	291·8	G.T.S. ○ B.M. On N. end of W. abutment of bridge over Saongi stream, 33 chains W. of mile-stone No. 470, and between telegraph posts Nos. 469/12 and 469/13.	885·616	885·805
310		292·7	Destroyed.	923·241	923·438
311	BM.33 / 55 L	293·3	G.T.S. ○ B.M. On coping of platform opposite booking office at Wardha Railway Station.	935·182	935·381
312	BM.88 / 55 L	293·4	G.T.S. B.M. □ at Wardha Railway Station. Embedded 9 inches below platform level, 59 feet and 86° from S.E. iron column of over-bridge, 53 feet and 235° from N.W. corner of tank house, 14 feet and 110° from E. kitson lamp-post, 16 feet from W. edge of well, and 23 feet from edge of platform.	934·508	934·707
313	BM.89 / 55 L	294·3	G.T.S. ○ B.M. On E. abutment, in line with N. girder of bridge at mile-post No. 472 from Bombay.	904·198	904·390
314	BM 90 / 55 L	295·0	G.T.S. B.○M. On N. parapet of culvert, 20 chains W. of mile-post No. 473 from Bombay.	904·304	904·496
315	BM 91 / 55 L	296·4	G.T.S. ○ B.M. On E. end of N. parapet of bridge, 8 chains E. of mile-post No. 474 from Bombay.	870·119	870·303
316	BM.92 / 55 L	297·2	G.T.S. ○ B.M. On centre of N. parapet of bridge, 8 chains W. of mile-post No. 475 from Bombay.	843·413	843·591
317	BM.93 / 55 L	298·3	G.T.S. ○ B.M. On W. end of N. parapet of bridge, 5 chains E. of mile-post No. 476 from Bombay.	823·875	824·049
318	BM.94 / 55 L	299·3	G.T.S. ○ B.M. On coping of N.W. wall of N.E. abutment of bridge over Kis stream, at mile-post No. 477 from Bombay.	797·362	797·529

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
319	BM.95 / 55 L	299·8	G.T.S. ○ B.M.	On S. abutment, at E. face of W. wall, of Paunar bridge over Dham river, 34 chains S. of mile-post No. 478 from Bombay.	804·569	804·738
320	BM.96 / 55 L	300·6	G.T.S. ○ B.M.	On W. abutment of Wahidpur bridge, 29 chains E. of mile-post No. 478 from Bombay.	808·489	808·659
321	BM.97 / 55 L	301·5	G.T.S. ○ B.M.	On E. end of N. parapet of bridge, 21 chains E. of mile-post No. 479 from Bombay.	817·667	817·839
322	BM 98 / 55 L	302·0	G.T.S. B.M. □	at Paunar Railway Station. Embedded in station verandah to right of door of waiting room, 16 inches from wall, flush with pavement, 12 feet from westernmost timber column of verandah, 12 feet from S.W. and 35 feet from S.E. corners of station building.	829·893	830·067
323	BM 99 / 55 L	302·0		Rail opposite home semaphore at Paunar Railway Station.	827·902	828·076
324	BM.100 / 55 L	302·0	G.T.S. ○ B.M.	On base of home semaphore at Paunar Railway Station.	829·771	829·945
325	BM 101 / 55 L	302·5	G.T.S. ○ B.M.	On base of down distant semaphore at Paunar Railway Station.	820·636	820·808
326	BM.102 / 55 L	303·4	G.T.S. ○ B.M.	On centre of N. parapet of bridge, 10 chains E. of mile-post No. 481 from Bombay.	819·797	819·969
327	BM.103 / 55 L	304·2	G.T.S. ○ B.M.	On N. parapet of bridge, 4 chains E. of mile-post No. 482 from Bombay.	842·025	842·201
328	BM.104 / 55 L	304·9	G.T.S. ○ B.M.	On N. parapet of bridge, 31 chains W. of mile-post No. 483 from Bombay.	846·480	846·657
329	BM.105 / 55 L	306·0	G.T.S. ○ B.M.	On centre of N. parapet of bridge, 22 chains W. of mile-post No. 484 from Bombay.	851·705	851·883
330	BM.106 / 55 L	306·9	G.T.S. ○ B.M.	On E. end of N. parapet of bridge, 29 chains W. of mile-post No. 485 from Bombay.	842·910	843·086
331	BM.107 / 55 L	308·2	G.T.S. ○ B.M.	at Tuljapur Railway Station. On stone base of 2nd timber post, counting from E. side of verandah, 7 chains W. of mile-post No. 486 from Bombay.	842·430	842·605
332	BM.108 / 55 L	309·1	G.T.S. ○ B.M.	On W. end of N. parapet of bridge, 11 chains W. of mile-post No. 487 from Bombay.	814·739	814·909

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1/332	BM.109/55 L	311·3	On upper mark-stone of Keljhar G.T. Survey Hill Station, lat. 20° 49′ 24″·28, long. 78° 48′ 35″·02. A secondary station of Great Arc Meridional Series—Section 18° to 24°. (For full description *see* Synoptical Volume).	1142·326	1142·564
333	BM.110/55 L	309·4	G.T.S. ○ B.M. On centre of N. parapet of bridge, 12 chains E. of mile-post No. 487 from Bombay.	811·068	811·237
334	BM.111/55 L	310·6	G.T.S. ○ B.M. On coping of N. parapet of E. abutment of bridge, 24 chains E. of mile-post No. 488 from Bombay.	796·148	796·314
335	BM 112/55 L	310·7	G.T.S. ○ B.M. On coping of N. parapet of W. abutment of bridge, 35 chains E. of mile-post No. 488 from Bombay.	796·231	796·397
336	BM 113/55 L	311·7	G.T.S. ○ B.M. On coping of N. parapet of E. abutment of bridge, 34 chains E. of mile-post No. 489 from Bombay.	799·608	799·774
337	BM.114/55 L	312·4	G.T.S. ○ B.M. On centre of N. parapet of bridge, 13 chains E. of mile-post No. 490 from Bombay.	794·782	794·947
338	BM.115/55 L	313·1	G.T.S. ○ B.M. On platform coping opposite booking office at Sindi Railway Station.	808·547	808·715
a/338	BM 116/55 L	313·2	G.T.S. B.M. □ at Sindi Railway Station. Embedded in station verandah between booking office and 3rd class waiting room, 16 inches from wall, flush with pavement, 11 feet from centre of door of booking office, 17 feet from B.M. No. 338, 33 feet from N.E. corner of station building, and 14 feet from edge of platform.	808·692	808·860
339	BM.117/55 L	313·9	G.T.S. ○ B.M. On E. end of N. parapet of bridge, 32 chains W. of mile-post No. 492 from Bombay.	808·151	808·319
340	BM.118/55 L	315·6	G.T.S. ○ B.M. On E end of N. parapet of bridge, 25 chains E. of mile-post No. 493 from Bombay.	829·382	829·554
341	BM.119/55 L	316·7	G.T.S. ○ B.M. On W. end of N. parapet of bridge, 34 chains E. of mile-post No. 494 from Bombay.	845·215	845·390
342	BM.120/55 L	317·6	G.T.S. ○ B.M. On centre of N.W. parapet of bridge, 25 chains S.E. of mile-post No. 495 from Bombay.	861·991	862·169
343	BM.121/55 L	318·7	G.T.S. ○ B.M. On W parapet of culvert, 35 chains N. of mile-post No. 496 from Bombay.	863·111	863·289
344	BM.122/55 L	319·1	G.T.S. ○ B.M. On centre of W. parapet of bridge, 10 chains S. of mile-post No. 497 from Bombay.	856·047	856·223

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Nandgaon	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
345	BM.123 / 55 L	320·1	G.T.S. ○ B.M. On centre of N.W. parapet of culvert, 16 chains S.W. of mile-post No. 498 from Bombay.	870·267	870·445
346	BM.124 / 55 L	320·5	G.T.S. ○ B.M. On S.W. abutment of bridge, 22 chains N.E. of mile-post No. 498 from Bombay.	876·475	876·655
347	BM.125 / 55 L	321·6	G.T.S. ○ B.M. On centre of N.W. parapet of culvert, 30 chains N.E. of mile-post No. 499 from Bombay.	904·144	904·328
348	BM.126 / 55 L	322·2	G.T.S. ○ B.M. On N.E. end of N.W. parapet of bridge, 6 chains S.W. of mile-post No. 500 from Bombay.	889·621	889·803
349	BM.18 / 55 P	323·1	G.T.S. ○ B.M. On centre of N.W. parapet of bridge, 11 chains S.W. of mile-post No. 501 from Bombay.	872·322	872·499
350	BM.19 / 55 P	323·9	G.T.S. ○ B.M. On W. wall of S. abutment of bridge over Jhurup river, 29 chains S. of mile-post No. 502 from Bombay.	855·462	855·635
351	BM.20 / 55 P	325·1	G.T.S. ○ B.M. On platform coping opposite booking office at Bori Railway Station.	873·155	873·330
a 351	BM.21 / 55 P	325·2	G.T.S. B.M. □ at Bori Railway Station. Embedded at S. side of station, nearly opposite E. window and 7 feet from wall, 1 foot below ground level, 17 feet from S.W. and 11 feet from S.E. corners of station building, and 39 feet from edge of platform. The letters B.M. are cut on S. face of station.	873·074	873·249
352	BM.22 / 55 P	325·7	G.T.S. ○ B.M. On S. end of W. parapet of bridge, 36 chains N. of mile-post No. 503 from Bombay.	878·994	879·171
353	BM.23 / 55 P	326·2	G.T.S. ○ B.M. On centre of W. parapet of culvert, 4 chains S. of mile-post No. 504 from Bombay.	889·288	889·466
354	BM.24 / 55 P	327·2	G.T.S. ○ B.M. On centre of W. parapet of culvert, 1 chain S. of mile-post No. 505 from Bombay.	912·294	912·475
355	BM.25 / 55 P	328·3	G.T.S. ○ B.M. On centre of W. parapet of culvert, 3 chains N. of mile-post No. 506 from Bombay.	944·470	944·657
356	BM.26 / 55 P	329·2	G.T.S. ○ B.M. On N. end of W. parapet of culvert, 9 chains S. of mile-post No. 507 from Bombay.	957·481	957·670
357	BM.27 / 55 P	330·1	G.T.S. ○ B.M. On W. parapet of culvert, 11 chains S. of mile-post No. 508 from Bombay.	970·716	970·907

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
358	BM.1 / 55 O	331·3	G.T.S. ○ B.M. On S. end of W. parapet of bridge, 6 chains N. of mile-post No. 509 from Bombay.	965·498	965·687
359	BM.2 / 55 O	332·2	G.T.S. ○ B.M. On N. end of W. parapet of bridge, 6 chains S. of mile-post No. 510 from Bombay.	950·449	950·634
360	BM.3 / 55 O	332·7	G.T.S. ○ B.M. On centre of W. parapet of culvert, 34 chains N. of mile-post No. 510 from Bombay.	967·312	967·500
361	BM 4 / 55 O	333·4	G.T.S. ○ B.M. On N. end of W. parapet of bridge, 11 chains N. of mile-post No. 511 from Bombay.	969·563	969·751
362	BM 5 / 55 O	334·6	G.T.S. ○ B.M. On base of home semaphore at Kapri Railway Station.	1013·854	1014·050
363	BM.6 / 55 O	334·6	G.T.S. B.M. □ at Kapri Railway Station. Embedded on S. side of station, 9 inches below ground level, 24 feet from S.W. and 7 feet from S.E. corners of station building, and 6 feet from S. wall on which letters B.M. are cut.	1012·533	1012·729
364	BM.7 / 55 O	334·9	G.T.S. ○ B.M. On N. end of W. parapet of bridge, 23 chains S. of mile-post No. 513 from Bombay.	1007·799	1007·994
365	BM.8 / 55 O	336·2	G.T.S. ○ B.M. On W. end of S. abutment of bridge, 2 chains S. of mile-post No. 514 from Bombay.	972·237	972·424
366	BM.9 / 55 O	337·7	G.T.S. ○ B.M. On W. parapet, over S. arch, of bridge, 33 chains N. of mile-post No. 515 from Bombay.	976·782	976·969
367	BM.10 / 55 O	339·1	G.T.S. ○ B.M. On N. end of W. parapet of bridge, 9 chains S. of mile-post No. 517 from Bombay.	981·194	981·380
368	BM.11 / 55 O	339·9	G.T.S. ○ B.M. On S. end of W. parapet of bridge, 30 chains S. of mile-post No. 518 from Bombay.	1005·478	1005·668
369	BM.12 / 55 O	341·2	G.T.S. ○ B.M. On W. end of S. abutment of bridge, 7 chains S. of mile-post No. 519 from Bombay.	984·510	984·695
370	BM.13 / 55 O	342·0	G.T.S. ○ B.M. On platform coping opposite main entrance or passage at Nagpur Railway Station.	1012·616	1012·805
371	BM.14 / 55 O	342·0	G.T.S. ○ B.M. On platform coping opposite S. face of reservoir at Nagpur Railway Station.	1012·522	1012·711

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
372	BM.15 / 55 O	342·1	G.T.S. B.M. □ at Nagpur Railway Station. Embedded about 1 foot below flooring of N. verandah of reservoir, 8 feet from its N.W. corner 14, 14 and 15 feet from N.E., S.E., and N.W. corners respectively of N. verandah, and 4 feet from N. wall of reservoir on which letters B.M. are cut, immediately below W. end of W. window.	1012·508	1012·697
1 / 372	BM.16 / 55 O	343·1	G.T.S. ○ B.M. On centre of E. parapet of road culvert, about 8 chains W. of S.W. corner of Arsenal, Nagpur.	1018·034	1018·224
2 / 372	BM.17 / 55 O	343·2	G./T.\S. B. | M. On 2nd step from bottom of obelisk near old Residency, Nagpur, on N.E. side, in front of slab on which is engraved "To Jubbulpore, 164 miles" "To Seoni, 77 miles". (P.W.D. bench-mark).	1019·187	1019·378
3 / 372	BM.18 / 55 O	343·4	G.T.S. B. ↑ M. No. 48 On N W. corner of base of E. columns of pediment at entrance to Museum, Nagpur. (P.W.D. bench-mark).	1006·304	1006·492
4 / 372	BM.19 / 55 O	343·9	G.T.S. B. ↑ M. No. 20 On plinth of E. column of S. arch at back or E. porch of Protestant church, Nagpur. (P.W.D. bench-mark).	1050·000	1050·196
5 / 372	BM.20 / 55 O	344·3	G.T.S. B. ↑ M. No. 16 On W. end of S. parapet of culvert at E. gate of District Court, Nagpur. (P.W.D. bench-mark).	1018·781	1018·972
6 / 372	BM.21 / 55 O	344·4	G.T.S. ○ B.M. On 2nd step from bottom of flight of steps on N. side of District Court, Nagpur.	1017·284	1017·474
7 / 372	BM.22 / 55 O	345·2	G.T.S. B. ↑ M. No. 47 On N. parapet, over W. pier, of culvert on main road to Telankheri gardens, about 4 chains E. of Das-mori bridge, and ¾ mile S.W. of District Court, Nagpur. (P.W.D. bench-mark).	1005·830	1006·018
8 / 372	BM.1 / 55 K	351·1	On the ⊙ of Lawa G. T. Survey Station, lat. 21° 9′ 40″·21, long. 78° 58′ 44″·80. A secondary station of both Great Arc Meridional Series—section 18° to 24°, and Jabalpur Meridional Series. (For full description *see* Synoptical Volumes).	1313·261	1313·507
a / 372	BM.23 / 55 O	342·6	G.T.S. ○ B.M. On S. end of 2nd step from bottom at W. entrance to Mayo Hospital, Nagpur.	1019·068	1019·259
373	BM.24 / 55 O	342·7	G.T.S. ○ B.M. On S.E. cap of S.W. abutment of bridge over main road to Kamptee, near telegraph post No. $\frac{0}{12}$, and 20 chains S.W. of mile-post No. 1 from Nagpur.	1007·685	1007·873
374	BM.25 / 55 O	343·8	G.T.S. ○ B.M. On S. pilaster cap of W. abutment of bridge, near telegraph post No. $\frac{1}{19}$, and 17 chains W. of mile-post No. 2 from Nagpur.	982·776	982·959

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
375	BM.26 / 55 O	344·3	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, between telegraph posts Nos. $\frac{2}{8}$ and $\frac{2}{9}$, and 27 chains E. of mile-post No. 2 from Nagpur.	978·668	978·850
376	BM.27 / 55 O	345·2	G.T.S. + B.M. On top of stone 6 inches square, embedded on S. side of line, between telegraph posts Nos. $\frac{3}{5}$ and $\frac{3}{6}$, 11 chains W. of level crossing No. 56, and 17 chains E. of mile-post No. 3 from Nagpur. (Railway bench-mark).	967·585	967·765
377	BM.28 / 55 O	345·4	G.T.S. ○ B.M. On N. end of E. wall of drain about 1 chain E. of level crossing No. 56, and 29 chains E. of mile-post No. 3 from Nagpur.	968·495	968·675
378	BM 29 / 55 O	346·5	G T.S. ○ B.M. On N. cap of W. abutment of bridge, near telegraph post No. $\frac{4}{14}$, and 37 chains S. of mile-post No. 5 from Nagpur.	951·917	952·094
379	BM 30 / 55 O	347·3	G T.S. ○ B.M. On N W. cap of S.W. abutment of Pili bridge No. 13, 25 chains N.E of mile-post No. 5 from Nagpur.	939·571	939·745
380	BM 31 / 55 O	349·2	G.T.S. ○ B.M. On N.W. cap of N.E. abutment of bridge, 16 chains N.E. of mile-post No 7 from Nagpur.	947·551	947·725
381	BM 32 / 55 O	349·9	G.T.S. ○ B.M. On E. cap of culvert, at telegraph post No. $\frac{7}{22}$, and 9 chains S. of mile-post No. 8 from Nagpur.	936·173	936·345
382	BM.33 / 55 O	350·2	G T S. ○ B.M. On S.E. cap of N.E. abutment of Ranala bridge No. 18, near telegraph post No. $\frac{8}{8}$, and 23 chains N.E. of mile-post No. 8 from Nagpur.	929·378	929·549
383	BM.34 / 55 O	350·7	G.T.S. ○ B.M. On platform coping opposite booking office at Kamptee Railway Station.	939·800	939·973
$\frac{1}{383}$	BM.35 / 55 O	351·2	↑ B.M. at Honorary Magistrate's Court House, Kamptee. On plinth at S.W. corner of building which is situated in Sadar Bazar. (P.W.D. bench-mark).	937·665	937·838
$\frac{2}{383}$	BM.36 / 55 O	351·5	B. ↑ M. On edge of W. wing of N. parapet of bridge, near vegetable market, Kamptee. (P.W.D bench mark).	913·421	913·589
$\frac{3}{383}$	BM 37 / 55 O	352·7	G T S. ○ B.M. On W. end of S. parapet of culvert No. 14 opposite gumti (Police sentrybox) No 2, situated at crossing of mall and road to Protestant church, Kamptee.	932·231	932·402

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	4/383	BM.38/55 O	352·9	G.T.S. ↓ ○ B.M. at Travellers' Bungalow, Kamptee. On plinth at E. side of building, in front of flood-plate embedded in wall on which is engraved Flood 4-9-76. ↓ (P.W.D. bench-mark).	922·769	922·939
	a/383	BM.39/55 O	353·2	On top of stone of Gordpur G. T. Survey Station, lat. 21° 10′ 48″·31, long. 79° 13′ 6″·71. A secondary station of Jabalpur Meridional Series. (For full description *see* Synoptical Volume).	972·966	973·145
384			351·4	Destroyed.	919·880	920·048
385		BM.40/55 O	352·0	G.T.S. ○ B.M. On N. cap of W. abutment of Bagdura bridge No. 24 at mile-post No. 10 from Nagpur.	916·416	916·584
386			353·0	Destroyed.	933·475	933·646
387			353·2	Destroyed.	933·654	933·825
388		BM.41/55 O	354·0	G.T.S. ○ B.M. On S. cap of W. abutment of culvert No. 31, about ¼ chain W. of mile-post No. 12 from Nagpur.	927·751	927·921
389		BM.42/55 O	354·5	G.T.S. ○ B.M. On S. end of E. abutment of bridge No. 32 near telegraph post No. 12/14, and 36 chains W. of mile-post No. 13 from Nagpur.	924·954	925·123
390		BM.43/55 O	355·9	G.T.S. ○ B.M. On S. cap of W. abutment of Chota Karki bridge No. 36, between telegraph posts Nos. 13/21 and 13/22, and 8 chains W. of mile-post No. 14 from Nagpur.	920·175	920·342
391		BM.44/55 O	356·9	[G.T.S.] B.⋀M. On N. cap of W. abutment of bridge, 3 chains W. of mile-post No. 15 from Nagpur. (Railway bench-mark).	945·725	945·897
392		BM.45/55 O	357·2	Rail opposite booking office at Salwa Railway Station.	946·341	946·513
393		BM.46/55 O	357·3	G.T.S. ○ B.M. On base of home semaphore at Salwa Railway Station.	948·052	948·225
394		BM.47/55 O	357·3	G.T.S. B.M. □ at Salwa Railway Station. Embedded 6 feet S. of letters B.M. cut on S. face of base of home semaphore, 8 feet from S.E. and 7 feet from S.W. corners of base of home semaphore, 72 feet from N.E. and 51 feet from S.E. corners of station building, and 8 feet from B.M. No. 393.	946·290	946·462

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Nandgaon	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
395	BM.48 / 55 O	357·7	G.T.S. ○ B.M. On N. cap of W. abutment of bridge No. 39, near telegraph post No. 15/18, and 22 chains W. of mile-post No. 16 from Nagpur.	941·055	941·226
396	BM.49 / 55 O	359·7	G.T.S. ○ B.M. On N. cap of W. abutment of Bara Karki bridge No. 44, near telegraph post No. 17/18, and 24 chains W. of mile-post No. 18 from Nagpur.	914·938	915·105
397	BM.50 / 55 O	360·9	G.T.S. ○ B.M. On S. cap of W. abutment of bridge No. 45, 3 chains W. of mile-post No. 19 from Nagpur.	913·827	913·993
398	BM.51 / 55 O	362·1	G.T.S. ○ B.M. On S. cap of W. abutment of bridge No. 46, near telegraph post No. 20/2, and 6 chains E. of mile-post No. 20 from Nagpur.	903·743	903·907
399	BM.52 / 55 O	363·0	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. 20/24, and 1 chain W. of mile-post No. 21 from Nagpur.	903·941	904·105
400	BM 53 / 55 O	363·6	G.T.S. ○ B.M. On S. cap of W. abutment of Tharsa bridge No. 49, near telegraph post No. 21/14, and 34 chains W. of mile-post No. 22 from Nagpur.	907·759	907·923
401	BM.54 / 55 O	364·2	G.T.S. ○ B.M. On N. cap of W. abutment of culvert, between telegraph posts Nos. 22/5 and 22/6, and 16 chains E. of mile-post No. 22 from Nagpur. (Railway bench-mark).	915·327	915·493
402	BM.55 / 55 O	365·3	G.T.S. ○ B.M. On platform coping opposite booking office at Tharsa Railway Station.	947·222	947·392
a/402	BM.56 / 55 O	365·3	Rail opposite booking office at Tharsa Railway Station	945·634	945·804
b/402	BM.57 / 55 O	365·3	G.T.S. B.M. □ at Tharsa Railway Station. Embedded at E. side of station, 1 foot from wall, 8 inches below level of platform, between window and S.E. corner of building, 3 and 20 feet from S.E. and N.E. corners respectively, and 21 feet from edge of platform. The letters B.M. are cut on face of E. wall of station.	946·856	947·026
403	BM.58 / 55 O	366·5	G.T.S. ○ B.M. On S. cap of E. abutment of culvert No. 56, near telegraph post No. 24/12, and 37 chains E. of mile-post No. 24 from Nagpur.	954·339	954·511

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
404	BM.59 / 55 O	367·6	G.T.S. ○ B.M. On N. cap of W. abutment of bridge No. 59, between telegraph posts Nos. $\frac{25}{16}$ and $\frac{25}{17}$, and 29 chains W. of mile-post No. 26 from Nagpur.	945·402	945·572
405	BM.60 / 55 O	369·7	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. $\frac{27}{17}$, and 25 chains W. of mile-post No. 28 from Nagpur.	945·306	945·476
406	BM.61 / 55 O	371·0	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 65, near telegraph post No. $\frac{28}{24}$, and 3 chains W. of mile-post No. 29 from Nagpur.	929·009	929·177
407	BM.62 / 55 O	372·1	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 66, near telegraph post No. $\frac{30}{2}$, and 5 chains E. of mile-post No. 30 from Nagpur.	918·691	918·857
408	BM.63 / 55 O	373·2	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 68, between telegraph posts Nos. $\frac{31}{6}$ and $\frac{31}{7}$, and 19 chains E. of mile-post No. 31 from Nagpur.	915·439	915·605
409	BM.64 / 55 O	373·9	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 69, near telegraph post No. $\frac{31}{22}$, and 9 chains W. of mile-post No. 32 from Nagpur.	920·010	920·177
410	BM.65 / 55 O	374·4	G.T.S. B.M. □ at Khat Railway Station. Embedded in N.W. corner of base of home semaphore, flush with upper surface of masonry, 2 feet above ground level, and 13 feet W. of station verandah.	924·811	924·978
411	BM.66 / 55 O	374·4	Rail opposite booking office at Khat Railway Station.	923·242	923·409
412	BM.67 / 55 O	374·9	G.T.S. ○ B.M. at Khat Railway Station. On S.E. corner of base of down distant semaphore, 4 chains W. of mile-post No. 33 from Nagpur.	914·658	914·824
413	BM.68 / 55 O	375·9	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 72, 5 chains W. of mile-post No. 34 from Nagpur.	906·484	906·649
414	BM.69 / 55 O	376·3	G.T.S. ○ B.M. On S. cap of W. abutment of bridge No. 73 at telegraph post No. $\frac{34}{9}$, and 27 chains E. of mile-post No. 34 from Nagpur.	901·295	901·459

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
415	BM.70 / 55 O	377·5	G.T.S. ○ B.M. On top of stone, 2 feet above ground level, embedded in ground, 27 feet S. of telegraph post No. 35/13, 32 feet S. of railway line, and 40 chains W. of mile-post No. 36 from Nagpur.	913·569	913·735
416	BM.71 / 55 O	378·6	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 76, near telegraph post No. 36/16, and 31 chains W. of mile-post No. 37 from Nagpur.	889·109	889·271
417	BM 72 / 55 O	380·6	G.T.S. ○ B.M. On platform coping opposite booking office at Bhandara Road Railway Station.	861·108	861·265
418	BM 73 / 55 O	380·6	G.T.S. ○ B.M. On base of home semaphore at Bhandara Road Railway Station.	862·057	862·214
a/418	BM.74 / 55 O	380·6	G.T.S. B.M. □ at Bhandara Road Railway Station. Embedded in verandah, near N. E corner of station building, flush with pavement, 5 feet from N. E. corner of station, 15 inches from wall, and 4 feet to left of centre of door of 1st and 2nd class waiting room.	860·547	860·704
419	BM.75 / 55 O	381·6	G.T.S. ○ B.M. On N. cap of W. abutment of Sonoli bridge No. 80, near telegraph post No. 39/16, and 30 chains W. of mile-post No. 40 from Nagpur.	837·334	837·486
420	BM.76 / 55 O	382·4	G T.S. ○ B.M. On N. cap of E. abutment of Suka bridge No. 82 over Sur river, at telegraph post No. 40/10, and 35 chains E. of mile-post No. 40 from Nagpur.	839·375	839·528
421	BM.77 / 55 O	384·5	G.T.S. ○ B M. On N.W. cap of N. E. abutment of bridge at telegraph post No. 42/12, and 38 chains N. E. of mile-post No. 42 from Nagpur.	834·462	834·613
422	BM 78 / 55 O	385·5	G.T.S. B.M. □ at Koka Railway Station. Embedded in S.W. corner of E. verandah, to left of entrance to booking office, 9 inches from S. wall of verandah, flush with pavement.	842·834	842·986
423	BM.79 / 55 O	385·5	G.T.S. ○ B.M. On S. W. corner of base of home semaphore at Koka Railway Station.	843·406	843·558
424	BM.80 / 55 O	387·3	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 85, near telegraph post No. 45/7, and 22 chains N. of mile-post No. 45 from Nagpur.	856·972	857·125

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
425	BM.81 / 55 O	388·0	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 87, between telegraph posts Nos. $\frac{46}{1}$ and $\frac{46}{2}$, and 2 chains N. of mile-post No. 46 from Nagpur.	857·983	858·136
426	BM.82 / 55 O	388·8	G.T.S. ○ B.M. On E. cap of N. abutment of bridge, near telegraph post No. $\frac{46}{19}$, and 18 chains S. of mile-post No. 47 from Nagpur.	869·155	869·310
427	BM.83 / 55 O	389·5	G.T.S. ○ B.M. On E. cap of S. abutment of bridge, between telegraph posts Nos. $\frac{47}{13}$ and $\frac{47}{14}$, and 35 chains S. of mile-post No. 48 from Nagpur.	866·004	866·157
428	BM.84 / 55 O	390·1	G.T.S. ○ B.M. On E. cap of S. abutment of bridge, between telegraph posts Nos. $\frac{48}{2}$ and $\frac{48}{3}$, and 6 chains N. of mile-post No. 48 from Nagpur.	862·013	862·166
429	BM.85 / 55 O	391·1	G.T.S. ○ B.M. On E. cap of S. abutment of bridge, near telegraph post No. $\frac{49}{3}$, and 10 chains N. of mile-post No. 49 from Nagpur.	863·025	863·177
430	BM 86 / 55 O	391·8	G.T.S. B.M. □ at Tumsar Road Railway Station. Embedded in front verandah, between door of booking office and E. corner of building, 10 inches from wall, flush with pavement, 4 feet from E. corner of building, and 8 feet from centre of door of booking office.	862·372	862·524
431	BM.87 / 55 O	391·8	G.T.S. ○ B.M. On platform coping opposite booking office at Tumsar Road Railway Station.	861·657	861·809
432	BM.88 / 55 O	391·9	G.T.S. ○ B.M. On base of home semaphore at Tumsar Road Railway Station.	862·443	862·595
433	BM.89 / 55 O	392·4	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. $\frac{50}{10}$, and 31 chains E. of mile-post No. 50 from Nagpur.	859·234	859·384
434	BM.90 / 55 O	394·3	G.T.S. ○ B.M. On N. end of W. abutment of Wainganga bridge No. 97, near telegraph post No. $\frac{52}{6}$, and 21 chains E. of mile-post No. 52 from Nagpur.	865·133	865·284
435	BM.91 / 55 O	394·6	G.T.S. ○ B.M. On S. end of E. abutment of Wainganga bridge No. 97 at foot of telegraph post No. $\frac{52}{10}$, and 37 chains W. of mile-post No. 53 from Nagpur.	864·979	865·130

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
436		BM.92 / 55 O	396·3	G.T.S. ○ B.M. On S. W. end of S. E. parapet of bridge, near telegraph post No. $\frac{54}{8}$, and 26 chains N. E. of mile-post No. 54 from Nagpur.	861·083	861·233
437		BM.93 / 55 O	397·2	G.T.S. ○ B.M. On E. cap of N. abutment of culvert, near telegraph post No. $\frac{55}{5}$, and 13 chains N. of mile-post No. 55 from Nagpur.	886·341	886.494
438		BM.94 / 55 O	398·9	G.T.S. ○ B.M. On W. cap of S. abutment of Oghar bridge No. 103, near telegraph post No. $\frac{56}{22}$, and 8 chains S. of mile-post No. 57 from Nagpur.	869·047	869·196
439		BM.95 / 55 O	400·0	G.T.S. ○ B.M. On N. W. cap of N. E. abutment of bridge, near telegraph post No. $\frac{57}{23}$, and 3 chains S. W. of mile-post No. 58 from Nagpur.	868·704	868·853
440		BM.96 / 55 O	401·1	G.T.S. ○ B.M. On W. end of S. parapet of culvert, near telegraph post No. $\frac{59}{3}$, and 6 chains E. of mile-post No. 59 from Nagpur.	879·294	879·444
441		BM.97 / 55 O	402·7	G.T.S. B M. □ ⅄ On S. cap of W. abutment of bridge, near telegraph post No. $\frac{60}{19}$, and 22 chains W. of mile-post No. 61 from Nagpur. (Railway bench-mark).	884·630	884·781
442		BM.98 / 55 O	404·2	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. $\frac{62}{4}$, and 16 chains W. of Tirora Railway Station.	907·444	907·599
443		BM.99 / 55 O	404·4	G.T.S. ○ B.M. On platform coping opposite booking office at Tirora Railway Station.	909·189	909·344
	a / 443	BM.100 / 55 O	404·4	Rail opposite booking office at Tirora Railway Station.	907·737	907·891
	b / 443	BM.101 / 55 O	404·4	G.T.S. B.M. □ at Tirora Railway Station. Embedded at E. face of station, in front of S. window of booking office, 2 feet from wall, 6 inches below level of platform, 8 feet from S.E. and 15 feet from N.E. corners of station building, and 26 feet from home semaphore. The letters B.M. are cut on window sill at E. side of station.	908·180	908·334

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
444	BM.102 / 55 O	404·8	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge, near telegraph post No. 62/18, and 15 chains S.W. of mile-post No. 63 from Nagpur.	905·218	905·372
445	BM.103 / 55 O	406·4	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. 64/9, and 31 chains E. of mile-post No. 64 from Nagpur.	930·111	930·269
446	BM.1 / 64 O	409·7	G.T.S. ○ B.M. On N. parapet of culvert, near telegraph post No. 67/17, and 25 chains W. of mile-post No. 68 from Nagpur.	975·763	975·928
447	BM.2 / 64 O	410·8	G.T.S. ○ B.M. On E. end of N. parapet of bridge, near telegraph post No. 68/19, and 17 chains W. of mile-post No. 69 from Nagpur.	975·279	975·444
448	BM.3 / 64 O	412·0	G.T.S. ○ B.M. On N.W. cap of N.E. abutment of bridge, near telegraph post No. 69/24, and 2 chains S.W. of mile-post No. 70 from Nagpur.	1007·241	1007·411
449	BM.4 / 64 O	413·2	G.T.S. ○ B.M. On N. cap of E. abutment of bridge, near telegraph post No. 71/5, and 16 chains E. of mile-post No. 71 from Nagpur.	1003·249	1003·418
450	BM.5 / 64 O	413·8	G.T.S. ○ B.M. On platform coping opposite booking office at Gangajhiri Railway Station.	1022·195	1022·367
a/450	BM.6 / 64 O	413·8	Rail opposite booking office at Gangajhiri Railway Station.	1020·699	1020·870
b/450	BM.7 / 64 O	413·8	G.T.S. B.M. □ at Gangajhiri Railway Station. Embedded at E. face of station, in front of window of booking office, 2 feet from wall, and 6 inches below ground level; 9 feet from N.E. and S.E. corners of station building, and 25 feet from home semaphore. The letters B.M. are cut on E. face of building, below window sill.	1019·107	1019·278
451	BM.8 / 64 O	414·8	G.T.S. ○ B.M. On N. parapet of bridge, near telegraph post No. 72/18, and 19 chains W. of mile-post No. 73 from Nagpur.	1018·159	1018·330
452	BM.9 / 64 O	415·9	G.T.S. ○ B.M. On centre of N. parapet of culvert, near telegraph post No. 73/21, and 9 chains W. of mile-post No. 74 from Nagpur.	1010·307	1010·477

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
453	BM.10 / 64 C	417·0	G.T.S. ○ B.M. On cap of E. abutment of Fattaipur bridge No. 131, between telegraph posts Nos. 74/21 and 74/22, and 7 chains W. of mile-post No. 75 from Nagpur.	995·049	995·215
1/453	BM.11 / 64 C	417·2	G.T.S. □ B.M. at Khara Level Crossing No. 8. Embedded at N.E. corner of chauki and in line with verandah, almost level with ground, 7 feet from N.E. and 15 feet from S.E. corners of chauki.	993·817	993·983
2/453	BM.12 / 64 C	420·3	On top of rectangular protecting pillar of Khara G.T. Survey Hill Station, lat. 21° 25′ 35″·54, long. 80° 5′ 52″·00. A principal station of Jabalpur Meridional Series. (For full description *see* Synoptical Volume).	2005·025	2005·360
454	BM.13 / 64 C	418·0	G.T.S. ○ B.M. On S. parapet of culvert, near level crossing No. 9, and 7 chains W. of mile-post No. 76 from Nagpur.	1025·174	1025·345
455	BM 14 / 64 C	419·2	G.T.S. ○ B.M. On S. parapet of bridge, near telegraph post No. 77/3, and 8 chains E. of mile-post No. 77 from Nagpur.	1026·053	1026·225
456	BM 15 / 64 C	420·0	G.T.S. ○ B.M. On S. parapet of bridge, near telegraph post No. 77/22, and 8 chains W. of mile-post No. 78 from Nagpur.	1021·708	1021·880
457	BM.16 / 64 C	421·1	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. 78/24, and 1 chain W. of mile-post No. 79 from Nagpur.	1029·072	1029·245
458	BM.17 / 64 C	421·8	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 79/18, and 21 chains W. of mile-post No. 80 from Nagpur.	1020·960	1021·132
459	BM.18 / 64 C	422·4	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 80/8, and 26 chains E. of mile-post No. 80 from Nagpur.	1013·830	1014·000
460	BM.19 / 64 C	422·8	G.T.S. ○ B.M. On platform coping opposite 3rd class waiting room at Gondia Railway Station.	1021·820	1021·992
461	BM.20 / 64 C	422·8	G.T.S. B.M. □ at Gondia Railway Station. Embedded 6 inches below ground level, at E. side of station, in front of window of ladies' waiting room, 2 feet from wall, 15 feet from N.E. and 8 feet from S.E. corners of station building, 36 feet from edge of platform, and 25 feet from home semaphore. The letters B.M are cut on E. face of building.	1021·000	1021·172

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
462		BM.21 / 64 C	423·5	G.T.S. ○ B.M. On S. parapet of drain, near telegraph post No. $\frac{81}{10}$, and 32 chains E. of mile-post No. 81 from Nagpur	1008·299	1008·468
463		BM.22 / 64 C	424·8	G.T.S. ○ B.M. On S. end of E. abutment, at N. face of pilaster cap, of Paungoli bridge No. 143, near telegraph post No. $\frac{82}{18}$, and 20 chains W. of mile-post No. 83 from Nagpur.	1001·171	1001·339
464		BM.23 / 64 C	425·2	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. $\frac{83}{4}$, and 12 chains E. of mile-post No. 83 from Nagpur.	997·535	997·703
465		BM.24 / 64 C	426·4	G.T.S. ○ B.M. On N.E. parapet of drain, near telegraph post No. $\frac{84}{9}$, 2 chains N.W. of level crossing No. 14, and 31 chains E. of mile-post No. 84 from Nagpur.	1018·743	1018·915
466		BM.25 / 64 C	427·5	G.T.S. ○ B.M. On N.E. cap of S.E. abutment of bridge, near telegraph post No. $\frac{85}{9}$, and 29 chains S.E. of mile-post No. 85 from Nagpur.	1028·374	1028·548
467		BM.26 / 64 C	428·5	G.T.S. ○ B.M. On N.E. cap of S.E. abutment of bridge, near telegraph post No. $\frac{86}{9}$, and 30 chains S.E. of mile-post No. 86 from Nagpur.	1020·709	1020·883
468		BM.27 / 64 C	429·9	G.T.S. ○ B.M. On centre of N.E. parapet of culvert, near telegraph post No. $\frac{87}{19}$, and 17 chains N.W. of mile-post No. 88 from Nagpur.	1026·121	1026·296
469		BM.28 / 64 C	430·1	Rail opposite booking office at Gudma Railway Station.	1019·387	1019·561
470		BM.29 / 64 C	430·2	G.T.S. B.M. □ at Gudma Railway Station. Embedded 6 inches below ground level, at S.E. face of station building, in front of window of booking office, and 2 feet from wall, 9 feet from S. and E. corners of building, and 27 feet from home semaphore.	1017·368	1017·542
	$\frac{1}{470}$	BM.30 / 64 C	432·1	Top of circular masonry pillar of Sitapar Latitude station, 3 feet above ground, 2 miles E. of Gudma Railway Station, and ¼ mile W. of B.M. No. $\frac{2}{470}$.	1058·990	1059·171
	$\frac{2}{470}$	BM.31 / 64 C	432·4	On top of rectangular protecting pillar of Sitapar G.T. Survey Hill Station, lat. 21° 24′ 50″·54, long. 80° 19′ 26″·36. A principal station of Jabalpur Meridional Series. (For full description *see* Synoptical Volume).	1241·189	1241·401

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
471	BM.32 / 64 C	430·4	G.T.S. ○ B.M. On S.W. cap of S.E. abutment of bridge, near telegraph post No. 88/6, and 22 chains S.E. of mile-post No. 88 from Nagpur.	1017·463	1017·637
472	BM 33 / 64 C	432·6	G.T.S. ○ B.M. On S.W. cap of N.W. abutment of bridge, near telegraph post No. 90/12, and 39 chains S.E. of mile-post No. 90 from Nagpur.	1039·259	1039·438
473	BM.34 / 64 C	433·9	G.T.S. ○ B.M. On S.W. parapet of culvert, near telegraph post No. 91/18, and 21 chains N.W. of mile-post No. 92 from Nagpur	1022·700	1022·876
474	BM 35 / 64 C	434·9	G.T.S. ○ B.M. On S.W. cap of N.W. abutment of bridge, near telegraph post No. 92/19, and 18 chains N.W. of mile-post No. 93 from Nagpur.	1006·931	1007·105
175	BM 36 / 64 C	435·7	G.T.S. ○ B.M. On S.W. cap of N.W. abutment of bridge, near telegraph post No. 93/15, and 34 chains N.W. of mile-post No. 94 from Nagpur.	1007·410	1007·584
476	BM 37 / 64 C	436·8	G.T.S. ○ B.M. On platform coping opposite booking office at Amgaon Railway Station.	1021·213	1021·391
477	BM 38 / 64 C	436·8	G.T.S. B.M. □ at Amgaon Railway Station. Embedded 6 inches below ground level, at S.E. side of station building, in front of window of ladies' waiting room, 2 feet from wall, 9 feet from S. and 17 feet from E. corners of station building, and 31 feet from edge of platform. The letters B.M. are cut on S.E. face of building.	1020·272	1020·449
478	BM 39 / 64 C	437·2	G.T.S. ○ B.M. On N.E. end of rock *in situ* on S. side of railway line, 62 feet N. of telegraph post No. 95/2, 148 feet E. of level crossing No. 10, and 187 feet S.E. of mile-post No. 95 from Nagpur.	1023·417	1023·595
479	BM.40 / 64 C	438·6	G.T.S. ○ B.M. On rock *in situ*, on S.W. side of railway cutting, and 2 feet above drain; 22 feet N. of telegraph post No. 96/11, and 36 chains S.E. of mile-post No. 96 from Nagpur.	1024·328	1024·507
480	BM.41 / 64 C	439·6	G.T.S. ○ B.M. On S.W. cap of N.W. abutment of bridge, between telegraph posts Nos. 97/10 and 97/11, and 33 chains S.E. of mile-post No. 97 from Nagpur.	1007·859	1008·036

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks			Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
481		BM.42 / 64 C	440·5	G.T.S. ○ B.M. On S. cap of E. abutment of Baghnadi bridge No. 161, near telegraph post No. 98/5, and 26 chains S.E. of mile-post No. 98 from Nagpur.	1013·781	1013·959
482		BM.43 / 64 C	441·4	G.T.S. ○ B.M. On N. parapet of culvert, near telegraph post No. 99/6, and 19 chains E. of mile-post No. 99 from Nagpur.	1008·620	1008·799
483		BM.44 / 64 C	442·5	G.T.S. ○ B.M. On N. parapet of culvert, near telegraph post No. 100/9, and 28 chains E. of mile-post No. 100 from Nagpur.	1023·108	1023·289
484		BM.45 / 64 C	442·7	G.T.S. ○ B.M. On N.E. parapet of culvert, near telegraph post No. 100/13, and 40 chains S.E. of mile-post No. 100 from Nagpur.	1024·030	1024·211
485		BM.46 / 64 C	444·1	G.T.S. ○ B.M. On rock *in situ*, on N. margin of railway line, between telegraph posts Nos. 101/23 and 101/24, 109 feet N.W. of level crossing No. 14, and 4 chains W. of mile-post No. 102 from Nagpur.	1034·958	1035·142
486		BM.47 / 64 C	446·0	G.T.S. ○ B.M. On platform coping opposite booking office at Salekasa Railway Station.	1053·245	1053·432
487		BM.48 / 64 C	446·0	G.T.S. B.M. □ at Salekasa Railway Station. Embedded 6 inches below ground level, at E. side of station building, in front of window of booking office, 2 feet from wall, 8 feet from S.E. and 15 feet from N.E. corners of station building, 34 feet from edge of platform, and 26 feet from home semaphore. The letters B.M. are cut on stone sill of window.	1052·751	1052·938
488		BM.49 / 64 C	446·7	G.T.S. ○ B.M. On N. cap of W. abutment of culvert, near telegraph post No. 104/14, and 36 chains W. of mile-post No. 105 from Nagpur.	1068·831	1069·021
489		BM.50 / 64 C	448·0	G.T.S. ○ B.M. On N.W. end of N.E. parapet of bridge, near telegraph post No. 105/20, and 6 chains N.W. of mile-post No. 106 from Nagpur.	1075·082	1075·274
490		BM.51 / 64 C	449·2	G.T.S. ○ B.M. On W. end of S. parapet of Palekasa bridge No. 177, near telegraph post No. 107/1, and 2 chains E. of mile-post No. 107 from Nagpur.	1105·705	1105·903

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
491	BM 52 / 64 O	450·3	G.T.S. ○ B.M. On E. end of S. parapet of bridge, near telegraph post No. $\frac{108}{2}$, and 5 chains E. of mile-post No. 108 from Nagpur.	1147·009	1147·215
492	BM.53 / 64 O	451·1	G.T.S. ○ B.M. On E. end of N. parapet of culvert, near telegraph post No. $\frac{108}{20}$, and 6 chains W. of mile-post No. 109 from Nagpur.	1177·292	1177·503
493	BM.54 / 64 O	452·4	G.T.S. ○ B.M. On N. cap of W. abutment of drain at level crossing No. 9, close to W. mouth of Darekasa tunnel.	1222·553	1222·773
494	BM.55 / 64 O	453·1	G.T.S. ○ B.M. On platform coping opposite booking office at Darekasa Railway Station.	1239·004	1239·227
495	BM.56 / 64 O	453·1	G.T.S. B.M. □ at Darekasa Railway Station. Embedded in S.E. verandah, in front of ticket window of booking office, 1 foot from wall, and 6 inches below floor; 9 feet from S. and E. corners of station building, 46 feet from edge of platform, and 30 feet from home semaphore. The letters B.M. are cut on S.E. face of building.	1239·614	1239·837
496	BM.57 / 64 O	454·6	G.T.S. ○ B.M. On N.E. cap of N.W. abutment of culvert No. 201, near telegraph post No. $\frac{112}{10}$, and 32 chains S.E. of mile-post No. 112 from Nagpur.	1278·808	1279·039
497	BM 58 / 64 O	455·8	G.T.S. ○ B.M. On N.E. cap of N.W. abutment of bridge No. 204, near telegraph post No. $\frac{113}{14}$, and 35 chains N.W. of mile-post No. 114 from Nagpur.	1290·267	1290·502
498	BM.59 / 64 O	456·3	G.T.S. ○ B.M. On N.E. cap of S.E. abutment of culvert No. 206, near telegraph post No. $\frac{114}{3}$, and 10 chains S.E. of mile-post No. 114 from Nagpur.	1287·059	1287·293
499	BM 60 / 64 O	457·8	G.T.S. ○ B.M. On platform coping opposite booking office at Bortalao Railway Station.	1321·253	1321·495
500	BM.61 / 64 O	457·9	G.T.S. B.M. □ at Bortalao Railway Station. Embedded at E. face of station building, in front of window of booking office, 1 foot from wall, 6 inches below plinth of building; 8 feet from S.E. and 15 feet from N.E. corners of station building, and 37 feet from edge of platform. The letters B.M. are cut on E. face of building.	1320·982	1321·224
501	BM.62 / 64 O	457·9	Rail opposite booking office at Bortalao Railway Station.	1319·644	1319·886

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
502	BM.63 / 64 C	459·1	G.T.S. ○ B.M.	On S.W. wing of N.W. abutment of culvert No. 215, near telegraph post No. $\frac{116}{21}$, and 11 chains N.W. of mile-post No. 117 from Nagpur.	1324·181	1324·423
503	BM.64 / 64 C	460·0	G.T.S. ○ B.M.	On centre of N.E. parapet of culvert No. 219, near telegraph post No. $\frac{117}{19}$, and 17 chains N.W. of mile-post No. 118 from Nagpur.	1288·144	1288·381
504	BM 65 / 64 C	462·5	G.T.S. ○ B.M.	On N.E. cap of N.W. abutment of bridge No. 226, near telegraph post No. $\frac{120}{8}$, and 19 chains S.E. of mile-post No. 120 from Nagpur.	1204·553	1204·776
505	BM.66 / 64 C	464·5	G.T.S. ○ B.M.	On N.E. cap of S.E. abutment of culvert No. 228, near telegraph post No. $\frac{122}{8}$, and 25 chains S.E. of mile-post No. 122 from Nagpur.	1157·665	1157·880
506	BM.67 / 64 C	465·2	G.T.S. ○ B.M.	On N. cap of E. abutment of culvert No. 230, near telegraph post No. $\frac{123}{2}$, and 4 chains E. of mile-post No. 123 from Nagpur.	1147·723	1147·937
507	BM.68 / 64 C	466·3	G.T.S. ○ B.M.	On N.W. cap of N.E. abutment of bridge No. 233, near telegraph post No. $\frac{124}{2}$, and 6 chains N.E. of mile-post No. 124 from Nagpur.	1160·494	1160·709
508	BM.69 / 64 C	467·8	G.T.S. ○ B.M.	On N. parapet of bridge No. 238, near telegraph post No. $\frac{125}{15}$, and ½ mile W. of Dongargarh Railway Station.	1142·340	1142·551
509	BM.70 / 64 C	468·0	G.T.S. ○ B.M.	On N. cap of E. abutment of Dongargarh bridge, near telegraph post No. $\frac{125}{20}$, and 24 chains W. of Dongargarh Railway Station.	1138·544	1138·755
510	BM.71 / 64 C	468·3	G.T.S. ○ B.M.	On platform coping opposite booking office at Dongargarh Railway Station.	1140·202	1140·413
511	BM.72 / 64 C	468·3	G.T.S. B.M. □	at Dongargarh Railway Station. Embedded at E. side of station, in front of window of waiting room, 2 feet from wall, and 6 inches below ground level; 19 feet from S.E. and 10 feet from N.E. corners of station building, and 35 feet from edge of platform. The letters B.M. are cut on E. face of station.	1139·214	1139·425

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
512	BM.73 / 64 C	469·0	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 240, near telegraph post No. 126/22, and 11 chains W. of mile-post No. 127 from Nagpur.	1124·780	1124·988
513	BM.74 / 64 C	470·9	G.T.S. ○ B.M. On S. cap of W. abutment of bridge No. 242, near telegraph post No. 128/17, and 25 chains W. of mile-post No. 129 from Nagpur.	1092·704	1092·906
514	BM.75 / 64 C	472·4	G.T.S. ○ B.M. On N.E. cap of S.E. abutment of Koliari bridge No. 244, between telegraph posts Nos. 130/5 and 130/6, and 17 chains S.E. of mile-post No. 130 from Nagpur.	1066·778	1066·975
515	BM.76 / 64 C	473·4	G.T.S. ○ B.M. On S.W. cap of S.E. abutment of bridge No. 246, near telegraph post No. 131/7, and 20 chains S.E. of mile-post No. 131 from Nagpur.	1065·375	1065·573
516	BM.77 / 64 C	474·4	G.T.S. ○ B.M. On E.S.E. end of S.S.W. parapet of bridge No. 247, near telegraph post No. 132/6, and 18 chains E.S.E. of mile-post No. 132 from Nagpur.	1062·688	1062·886
517	BM.78 / 64 C	475·7	G.T.S. ○ B.M. On S.S.W. parapet of bridge No. 249, near up distant semaphore, at telegraph post No. 133/13, and 38 chains W.N.W. of mile-post No. 134 from Nagpur.	1051·405	1051·602
518	BM.79 / 64 C	476·2	G.T.S. B.M. □ at Musra Railway Station. Embedded in S.E. verandah of station, in front of ticket window of booking office, 2 feet from wall, and 1 foot below plinth of building; 6 inches below surface of ground, and 9 feet from S. and E. corners of booking office, and 47 feet from edge of platform. The letters B.M. are cut on S.E. face of station, below ticket window.	1049·448	1049·644
519	BM 80 / 64 C	477·2	G.T.S. ○ B.M. On N.E. cap of N.W. abutment of bridge No. 252, 3 chains S.E. of mile-post No. 135 from Nagpur.	1046·702	1046·898
520	BM.81 / 64 C	478·2	G.T.S. ○ B.M. On N.E. cap of N.W. abutment of bridge No. 254, near telegraph post No. 136/1, and 1 chain N.W. of mile-post No. 136 from Nagpur.	1025·558	1025·751
521	BM.82 / 64 C	479·1	G.T.S. ○ B.M. On S. cap of W. abutment of Chipah bridge at mile-post No. 137 from Nagpur.	1018·877	1019·069

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
522	BM.83 / 64 C	480·8	G.T.S. ○ B.M. On S.W. cap of N.W. abutment of bridge, near telegraph post No. 138/17, and 25 chains N.W. of mile-post No. 139 from Nagpur.	1034·597	1034·793
523	BM.84 / 64 C	481·6	G.T.S. ○ B.M. On N.E. cap of N.W. abutment of bridge, near telegraph post No. 139/12, and 37 chains S.E. of mile-post No. 139 from Nagpur.	1034·749	1034·945
524	BM.85 / 64 C	483·0	G.T.S. ○ B.M. On S.W. cap of S.E. abutment of culvert at Baranga level crossing No. 12, near telegraph post No. 140/22, and 11 chains N.W. of mile-post No. 141 from Nagpur.	1034·071	1034·266
525	BM.86 / 64 C	483·8	G.T.S. ○ B.M. On E. end of S. parapet of bridge, near telegraph post No. 141/15, and 30 chains W. of mile-post No. 142 from Nagpur.	1014·095	1014·287
526	BM.87 / 64 C	484·9	G.T.S. ○ B.M. On E. end of S. parapet of bridge, near telegraph post No. 142/19, and 17 chains W. of mile-post No. 143 from Nagpur.	1010·208	1010·400
527	BM.1 / 64 G	486·4	G.T.S. ○ B.M. On N. cap of W. abutment of bridge, near telegraph post No. 144/6, and 17 chains E. of mile-post No. 144 from Nagpur.	1017·191	1017·384
528	BM.2 / 64 G	487·7	G.T.S. ○ B.M. On platform copinopg posite booking office at Nandgaon Railway Station.	1010·508	1010·700
529	BM.3 / 64 G	487·7	G.T.S. B.M. □ at Nandgaon Railway Station. Embedded at E. side of station, in front of window of telegraph office, 1 foot from wall, and 6 inches below ground level; 11 feet from S. E. and 18 feet from N. E. corners of station building, 41 feet from edge of platform, and 26 feet from home semaphore. The letters B. M. are cut on E. face of building.	1010·126	1010·318
530	BM.4 / 64 G	488·0	G.T.S. ○ B.M. On N. cap of W. abutment of culvert, 27 chains E. of Nandgaon Railway Station, and 12 chains W. of mile-post No. 146 from Nagpur.	1010·048	1010·240
531	BM 5 / 64 G	488·4	G.T.S. ○ B.M. On S. E. cap of S.W. abutment of bridge, near telegraph post No. 146/7, and 20 chains S.E. of mile-post No. 146 from Nagpur.	995·976	996·165

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
532	BM 6 / 64 G	489·4	G.T.S. ○ B.M. On S. E. cap of S. W. abutment of Pari bridge, near telegraph post No. 147/6, and 18 chains S. E. of mile-post No. 147 from Nagpur.	977·954	978·140
533	BM 7 / 64 G	491·9	G.T.S. ○ B.M. On S. E. cap of N. E. abutment of bridge, near telegraph post No. 149/19, and 22 chains S. W. of mile-post No. 150 from Nagpur.	981·304	981·488
534	BM 8 / 64 G	493·1	G.T.S. ○ B.M. On S. E. cap of N. E. abutment of Rankuteran bridge, near telegraph post No. 150/23, and 5 chains S. W. of mile-post No. 151 from Nagpur.	980·733	980·917
535	BM.9 / 64 G	495·4	G.T.S. ○ B.M. On S. E. cap of N. E. abutment of bridge, between telegraph posts Nos. 153/5 and 153/6, and 17 chains N. E. of mile-post No. 153 from Nagpur.	1022·066	1022·256
536	BM.10 / 64 G	496·4	G.T.S. ○ B.M. On N. W. cap of S. W. abutment of bridge, near Muripar up distant semaphore, and 17 chains N. E. of mile-post No. 154 from Nagpur.	1015·928	1016·117
537	BM.11 / 64 G	497·0	G.T.S. ○ B.M. On platform coping opposite booking office at Muripar Railway Station.	1027·047	1027·237
538	BM 12 / 64 G	497·0	G.T.S. B.M. □ at Muripar Railway Station. Embedded at E. side of station, to right or N. of window of booking office, 1 foot from wall, and 10 inches below ground level; 9 feet from S.E. and 18 feet from N.E. corners of station building, 52 feet from edge of platform, and 32 feet from home semaphore. The letters B.M. are cut on E. face of station.	1027.316	1027.506
539	BM.13 / 64 G	498·5	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge, near telegraph post No. 156/9, and 29 chains N.E. of mile-post No. 156 from Nagpur.	985·058	985·240
540	BM.14 / 64 G	500·0	G.T.S. ○ B.M. On S.E. cap of S.W. abutment of bridge, near telegraph post No. 157/21, and 11 chains S.W. of mile-post No. 158 from Nagpur.	969·781	969·959
541	BM.15 / 64 G	501·5	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. 159/10, and 30 chains E. of mile-post No. 159 from Nagpur.	942·845	943·019

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
542	BM.16 / 64 G	502·8	G.T.S. ○ B.M. On N. cap of W. abutment of Seonath bridge No. 1, near telegraph post No. $\frac{160}{16}$, and 25 chains W. of mile-post No. 161 from Nagpur.	943·320	943·494
543	BM.17 / 64 G	503·0	G.T.S. ○ B.M. On N. cap of E. abutment of Seonath bridge No. 1, 8 chains W. of mile-post No. 161 from Nagpur.	943·267	943·441
544	BM.18 / 64 G	504·4	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. $\frac{162}{8}$, and 24 chains E. of mile-post No. 162 from Nagpur.	938·080	938·253
545	BM.19 / 64 G	505·3	G.T.S. ○ B.M. On S. cap of W. abutment of bridge at mile-post No. 163 from Nagpur.	938·139	938·312
546	BM.20 / 64 G	506·6	G.T.S. ○ B.M. On platform coping opposite booking office at Drug Railway Station.	965·969	966·147
547	BM.21 / 64 G	506·6	G.T.S. B.M. □ at Drug Railway Station. Embedded at E. side of station building, 1 foot from wall, and 9 inches below ground level; 15 feet from S.E. and 13 feet from N.E. corners of station, 46 feet from edge of platform, and 27 feet from home semaphore. The letters B.M. are cut on E. face of station.	965·962	966·140
548	BM.22 / 64 G	507·3	G.T.S. ○ B.M. On W. end of N. parapet of culvert, near telegraph post No. $\frac{165}{4}$, and 11 chains E. of mile-post No. 165 from Nagpur.	971·466	971·645
549	BM.23 / 64 G	509·1	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. $\frac{166}{24}$, and 3 chains W. of mile-post No. 167 from Nagpur.	959·161	959·337
550	BM.24 / 64 G	509·9	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, 24 chains W. of mile-post No. 168 from Nagpur.	955·999	956·175
551	BM.25 / 64 G	511·9	G.T.S. ○ B.M. On E. end of S. parapet of culvert, between telegraph posts Nos. $\frac{169}{19}$ and $\frac{169}{20}$, and 16 chains W. of mile-post No. 170 from Nagpur.	1000·158	1000·342
552	BM.26 / 64 G	513·0	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. $\frac{170}{21}$, and 9 chains W. of mile-post No. 171 from Nagpur.	999·936	1000·120

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
553	BM.27 / 64 G	514·7	G.T.S. ○ B.M. On E. end of S. parapet of culvert, near telegraph post No. 172/16, and 25 chains W. of Bhilai Railway Station.	995·908	996·091
554	BM 28 / 64 G	515·1	G.T.S. B.M. □ at Bhilai Railway Station. Embedded 6 inches below ground level, at W. side of station, 1 foot from wall, 9 feet from N.W. and 19 feet from S.W. corners of station building, 47 feet from edge of platform, and 40 feet from home semaphore. The letters B.M. are cut on W. face of station building.	999·765	999·949
555	BM 29 / 64 G	515·1	G.T.S. ○ B.M. On platform coping opposite booking office at Bhilai Railway station.	999·624	999·808
556	BM 30 / 64 G	516·4	G.T.S. ○ B.M. On W. end of S. parapet of culvert, near telegraph post No. 174/7, and 21 chains E. of mile-post No. 174 from Nagpur.	981·865	982·046
557	BM.31 / 64 G	517·2	G.T.S. ○ B.M. On S. E. cap of S.W. abutment of bridge, 4 chains N.E. of mile-post No. 175 from Nagpur.	985·964	986·144
558	BM.32 / 64 G	518·6	G.T.S. ○ B.M. On S. E. cap of N.E. abutment of bridge, near telegraph post No. 176/12, and 39 chains N.E. of mile-post No. 176 from Nagpur	967·400	967·577
559	BM 33 / 64 G	520·2	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge, near telegraph post No. 178/2, and 3 chains N.E. of mile-post No. 178 from Nagpur.	959·112	959·287
560	BM.34 / 64 G	521·6	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge, between telegraph posts Nos. 179/10 and 179/11, and 32 chains N.E. of mile-post No. 179 from Nagpur.	937·069	937·240
561	BM.35 / 64 G	521·9	G.T.S. B.M. □ at Kumhari Railway station. Embedded at S.W. side of station, 1 foot from wall, and 9 inches below ground level; 9 feet from W. and 19 feet from S. corners of station building, 47 feet from edge of platform, and 33 feet from home semaphore. The letters B.M. are cut on S.W. face of building.	936·630	936·800
562	BM.36 / 64 G	521·9	G.T.S. ○ B.M. On platform coping opposite booking office at Kumhari Railway Station.	936·422	936·591
563	BM.37 / 64 G	522·5	G.T.S. ○ B.M. On S.E. cap of S.W. abutment of bridge, near telegraph post No. 180/9, and 28 chains N.E. of mile-post No. 180 from Nagpur.	925·644	925·812

Main-Line 35. (Nandgaon to Raipur).

Designation of Bench-marks		Distance from Nandgaon	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
564	BM.38 / 64 G	523·5	G.T.S. ○ B.M. On N. cap of W. abutment of Kumhari bridge over Karun river, 32 chains E. of mile-post No. 181 from Nagpur.	915·996	916·162
565	BM.39 / 64 G	523·7	G.T.S. ○ B.M. On N. cap of E. abutment of Kumhari bridge over Karun river, 41 chains E. of mile-post No. 181 from Nagpur.	915·963	916·129
566	BM.40 / 64 G	525·1	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 182/23, and 2 chains W. of mile-post No. 183 from Nagpur.	915·370	915·536
567	BM.41 / 64 G	526·9	G.T.S. ○ B.M. On N. cap of W. abutment of bridge, near telegraph post No. 184/20, and 16 chains W. of mile-post No. 185 from Nagpur.	943·408	943·579
568	BM.42 / 64 G	528·3	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, 16 chains E. of mile-post No. 186 from Nagpur.	954·205	954·378
569	BM.43 / 64 G	529·7	G.T.S. ○ B.M. On platform coping opposite booking office at Raipur Railway Station.	958·775	958·948
570	BM.44 / 64 G	529·7	G.T.S. B.M. □ at Raipur Railway Station. Embedded at N. side of station, between windows of telegraph office and store-room, 1 foot from wall, and 9 inches below level of platform; 14 feet from N.E. and 16 feet from N.W. corners of station building, 47 feet from edge of platform, and 30 feet from home semaphore. The letters B.M. are cut on N. face of station building.	958·747	958·920
1/570	BM.45 / 64 G	530·6	G.T.S. ○ B.M. at Central Jail, Raipur. On stone pavement of main gateway, 5 feet N. of S.W. corner.	967·560	967·734
2/570	BM.46 / 64 G	531·0	G.T.S. ○ B.M. at Zilla Kachahri, Raipur. On 2nd step from bottom, at main entrance on W. side of building.	972·298	972·473
3/570	BM.47 / 64 G	531·0	On the ⊙ on roof of Raipur G. T. Survey Station, lat. 21° 14′ 43″·49, long. 81° 38′ 44″·32. A secondary station of Bilaspur Meridional Series. (For full description *see* Synoptical Volume).	998·360	998·540
4/570	BM.48 / 64 G	532·4	G.T.S. ○ B.M. at St. John's Church, Raipur. On stone sill of window on S. side of vestry.	981·364	981·541
4a/570	BM.49 / 64 G	532·5	St. John's Church, Raipur. N.E. corner of step at entrance to store-room on E. side.	977·785	977·961

Main-Line 36. (Vizagapatam to Vizianagram).

Designation of Bench-marks			Distance from Vizagapatam	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.29 / 65 O	0·0	G.T.S.C. □ B.M. at Vizagapatam. Embedded in pavement of verandah of Port Office, very nearly opposite E. door.	14·121	14·126
2		BM.31 / 65 O	0·8	G.T.S. ○ B.M. On coping at S. end of platform at Vizagapatam Railway Station.	8·460	8·463
3		BM.32 / 65 O	0·9	G.T.S. ○ B.M. On coping at N. end of platform at Vizagapatam Railway Station.	8·541	8·544
4		BM 33 / 65 O	2·1	G.T.S. ○ B.M. On coping of base of S.S.E. distant signal at Waltair Railway Station.	17·268	17·275
5		BM 34 / 65 O	2·5	G.T.S. ○ B.M. On platform coping at S.S.E. end at Waltair Railway Station.	23·454	23·463
	a/5	BM.35 / 65 O	2·6	G.T.S. □ B.M. at Waltair Railway Station. Embedded within enclosure of station master's quarters, 6 inches below surface of ground on W. side of building, 34 feet W.S.W. of N.W. corner pillar of verandah, 70 feet N.W. of S.W. corner of building, and 118 feet from N.E. corner of cook room.	26·706	26·716
6		BM 36 / 65 O	2·6	G.T.S. ○ B.M. On platform coping at N.N.W. end at Waltair Railway Station.	23·621	23·630
7		BM.37 / 65 O	3·0	G.T.S. ○ B.M. On coping at N.E. end of N.W. abutment of bridge, near telegraph post No. 216/24.	19·887	19·895
8		BM.38 / 65 O	4·4	G.T.S. ○ B.M. On coping at N. end of E. abutment of bridge, near telegraph post No. 218/10.	55·995	56·017
9		BM 39 / 65 O	5·5	G.T.S. ○ B.M. On coping at N. end of W. abutment of bridge, near telegraph post No. 219/10.	56·280	56·302
10		BM.40 / 65 O	6·6	G.T.S. ○ B.M. On coping at N. end of W. abutment of bridge, near telegraph post No. 220/15.	54·737	54·758
11		BM 41 / 65 O	7·5	G.T.S. ○ B.M. On coping at S.E. end of platform at Simhachalam Railway Station.	68·809	68·836
12		BM.42 / 65 O	7·6	G.T.S. ○ B.M. On coping at N.W. end of platform at Simhachalam Railway Station.	68·700	68·727

Main-Line 36. (Vizagapatam to Vizianagram).

Designation of Bench-marks			Distance from Vizagapatam	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
	a/12	BM.43/65 O	*miles* 7·6	G.T.S. □ B.M. at Simhachalam Railway Station. Embedded 9 inches below ground level, near S. corner of station master's quarters, 14 and 41 feet respectively from S. and E. corners of building, 13 feet from S. corner pillar of verandah, 144 feet W.S.W. of telegraph post No. 221/15, 309 feet N. N.W. of home semaphore, and 305 feet from N. corner of station building.	*feet* 78·782	*feet* 78·812
13		BM.44/65 O	8·8	G.T.S. ○ B.M. On N.W. end of S.W. parapet of bridge, near telegraph post No. 222/19.	56·501	56·523
14		BM 45/65 O	9·8	G.T.S. ○ B.M. On coping at W. end of N. abutment of bridge, near telegraph post No. 223/18.	64·152	64·177
15		BM.46/65 O	10·5	G.T.S. ○ B.M. On coping at W. end of N. abutment of bridge, near telegraph post No. 224/9.	63·795	63·820
16		BM 47/65 O	10·9	G.T.S. ○ B.M. On coping at W. end of S. abutment of bridge, near telegraph post No. 224/19.	63·667	63.692
17		BM.48/65 O	12·1	G.T.S. ○ B.M. On coping at W. end of S. abutment of bridge, near telegraph post No. 226/3.	72·187	72·215
18		BM.49/65 O	12·6	G.T.S. ○ B.M. On centre of W. parapet of culvert, near telegraph post No. 226/13.	76·621	76·650
19		BM.50/65 O	13·8	G.T.S. ○ B.M. On coping at E. end of S. abutment of bridge, near telegraph post No. 227/18.	87·445	87·478
20		BM 51/65 O	15·1	G.T.S. ○ B.M. On W. parapet of culvert, near telegraph post No. 229/3.	101·969	102·008
21		BM.52/65 O	16·5	G.T.S. ○ B.M. On W. parapet of culvert, near telegraph post No. 230/12.	126·006	126·054
22		BM.53/65 O	17·4	G.T.S. ○ B.M. On W. parapet of culvert, near telegraph post No. 231/9.	145·791	145·846
23		BM.54/65 O	18·0	G.T.S. ○ B.M. On N. end of E. parapet of bridge, near telegraph post No. 231/23.	162·297	162·358

Main-Line 36. (Vizagapatam to Vizianagram).

Designation of Bench-marks		Distance from Vizagapatam	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
24	BM.55 / 65 O	18·2	G.T.S. ○ B.M. On E. parapet of bridge, near telegraph post No. 232/5.	169·240	169·304
25	BM.56 / 65 O	18·7	G.T.S. ○ B.M. On coping at S. end of platform at Kottavalasa Railway Station.	173·326	173·391
26	BM.57 / 65 O	18·8	G.T.S. ○ B.M. On coping at N. end of platform at Kottavalasa Railway Station.	173·293	173·358
a/26	BM 58 / 65 O	18·8	G.T.S. □ B.M. at Kottavalasa Railway Station. Embedded 8 inches below ground level, near S.W. corner of station master's quarters, 12 feet S. of S.W. corner pillar of verandah, 39 feet from S.E. corner of building, 186 feet E.N.E. of B.M. No. 26, 110 feet N.E. of telegraph post No. 232/18, and 273 feet N. of N.E. corner of station building.	172·365	172·430
27	BM.59 / 65 O	19·1	G.T.S. ○ B.M. On coping at E. end of S. abutment of bridge, near telegraph post No. 233/2.	172·470	172·535
28	BM.60 / 65 O	20·1	G.T.S. ○ B.M. On centre of E. parapet of bridge, near telegraph post No. 234/3.	205·405	205·482
1/28	BM.61 / 65 O	21·8	On uppermost mark-stone of Vizagapatam Base-Line S. End G.T. Survey Station, lat. 17° 55′ 38″·16, long. 83° 11′ 42″·23. A principal station of East Coast Series. (For full description *see* Synoptical Volume).	311·468	311·585
29	BM.62 / 65 O	21·1	G.T.S. ○ B.M. On centre of W. parapet of culvert, near telegraph post No. 235/2.	239·476	239·566
30	BM.63 / 65 O	22·4	G.T.S. ○ B.M. On centre of N.W. parapet of bridge, near telegraph post No. 236/11.	250·278	250·372
31	BM.64 / 65 O	23·3	G.T.S. ○ B.M. On coping at N.W. end of S.W. abutment of bridge, near telegraph post No. 237/8.	241·122	241·212
32	BM.65 / 65 O	24·6	G.T.S. ○ B.M. On N.W. parapet of culvert, near telegraph post No. 238/15.	217·969	218·050
33	BM.66 / 65 O	27·3	G.T.S. ○ B.M. On N.E. end of N.W. parapet of bridge, near telegraph post No. 241/7.	149·316	149·371

Main-Line 36. (Vizagapatam to Vizianagram).

Designation of Bench-marks: Geodetic	Designation of Bench-marks: Topographic	Distance from Vizagapatam	Description of Bench-marks	Corrected Elevation: Dynamic	Corrected Elevation: Orthometric
		miles		*feet*	*feet*
34	BM.67 / 65 O	28·0	G.T.S. ○ B.M. On S.W. end of N.W. parapet of bridge, near telegraph post No. 242/1.	126·356	126·403
35	BM.68 / 65 O	28·6	G.T.S. ○ B.M. On S.W. end of S.E. parapet of culvert, near telegraph post No. 242/14.	128·460	128·507
36	BM.1 / 65 N	28·8	G.T.S. ○ B.M. On coping of base of S.W. distant signal at Alamanda Railway Station.	133·855	133·905
37	BM.2 / 65 N	29·2	G.T.S. ○ B.M. On coping at S.W. end of platform at Alamanda Railway Station.	142·349	142·402
a/37	BM.3 / 65 N	29·2	G.T.S. □ B.M. at Alamanda Railway Station. Embedded in station, a few inches below platform level, between S.W. entrance to station platform and home semaphore, 32 feet from former and 9 feet N.W. of latter, 20 feet from S. corner pillar of station verandah, 33 feet from S. corner of booking office, and 49 feet from W. corner of station building.	142·372	142·425
b/37	BM.4 / 65 N	32·3	G.T.S. ○ B.M. On top of south bar-comparison stone pillar, 3 chains E. of B.M. No. 1/37.	183·156	183·224
1/37	BM.5 / 65 N	32·3	On uppermost mark-stone of Vizagapatam Base-Line N. End G.T. Survey Station, lat. 18° 1′ 2″·91, long. 83° 13′ 43″·36. A principal station of East Coast Series. (For full description *see* Synoptical Volume).	182·117	182·184
38	BM.6 / 65 N	29·3	G.T.S. ○ B.M. On coping at N.E. end of platform at Alamanda Railway Station.	142·345	142·398
39	BM.7 / 65 N	30·0	G.T.S. ○ B.M. On N.E. end of N.W. parapet of bridge, near telegraph post No. 244/2.	125·904	125·950
40	BM.8 / 65 N	30·9	G.T.S. ○ B.M. On N.E. end of N.W. parapet of bridge, near telegraph post No. 245/1.	106·585	106·624
41	BM.9 / 65 N	31·1	G.T.S. ○ B.M. On N.E. end of N.W. parapet of culvert, near telegraph post No. 245/5.	99·519	99·556
42	BM.10 / 65 N	32·4	G.T.S. ○ B.M. On coping at S.E. end of N.E. abutment of bridge, near telegraph post No. 246/7.	104·756	104·795
43	BM.11 / 65 N	33·3	G.T.S. ○ B.M. On coping at N. end of W. abutment of bridge, near telegraph post No. 247/8.	98·204	98·240

Main-Line 36. (Vizagapatam to Vizianagram).

Designation of Bench-marks		Distance from Vizagapatam	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
44	BM.12 / 65 N	34·4	G.T.S. ○ B.M. On centre of N. parapet of culvert, near telegraph post No. 248/10.	119·920	119·964
45	BM.13 / 65 N	35·4	G.T.S. ○ B.M. On N.E. end of N.W. parapet of bridge, near telegraph post No. 249/11.	138·026	138·077
46	BM 14 / 65 N	36·7	G.T.S. ○ B.M. On S.W. end of N.W. parapet of bridge, near telegraph post No. 250/17.	168·079	168·140
47	BM.15 / 65 N	37·3	G.T.S. ○ B.M. On centre of N.W. parapet of bridge, near telegraph post No. 251/8.	168·085	168·146
48	BM.16 / 65 N	38·0	G.T.S. ○ B.M. On N.E. end of N.W. parapet of bridge, near telegraph post No. 252/3.	179·810	179·876
49	BM.17 / 65 N	38·3	G.T.S. ○ B.M. On N. parapet of drain, near telegraph post No. 252/9.	184·133	184·200
50	BM 18 / 65 N	39·3	G.T.S. ○ B.M. On S.E. parapet of culvert, near telegraph post No. 253/9.	193·221	193·292
a/50	BM.19 / 65 N	40·2	G.T.S. ○ B.M. On S. end of platform coping at Vizianagram Railway Station and 166 feet from B.M. No. 51.	196·259	196·331
51	BM.20 / 65 N	40·2	G.T.S. □ B.M. at Vizianagram Railway Station. Embedded on S. side of permanent way inspector's quarters, 4 inches below surface of ground, 38 feet W. of S.E. corner of building, 12 feet S. of S.W. corner pillar of verandah, 225 feet from S.E. corner of station building, 143 feet N.E. of iron cylinder of water-tank, and 162 feet from centre of main line of railway.	190·785	190·855
1/51	BM.21 / 65 N	41·4	G.T.S. B.○M. On top of mile-stone No. 1 from Vizianagram on road to Kasipatnam.	227·550	227·633
2/51	BM 22 / 65 N	42·4	G.T.S. B.○M. On top of mile-stone No. 2 from Vizianagram on road to Kasipatnam.	224·418	224·500
2a/51	BM.23 / 65 N	43·1	G.T.S. ○ B.M. On stone cap of pillar on S. margin of road from Vizianagram to Kasipatnam, 17 chains E. of mile-stone No. 3 from Vizianagram. The pillar is situated opposite hamlet of Somalgatti-Itu, at way-side resting place.	229·286	229·370

Main-Line 36. (Vizagapatam to Vizianagram).

Designation of Bench-marks		Distance from Vizagapatam	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
3/51	BM.24/65 N	43·4	G.T.S. ○ B.M. On top of mile-stone No. 3 from Vizianagram on road to Kasipatnam.	205·717	205·792
4/51	BM.25/65 N	44·4	G.T.S. B.○M. On top of mile-stone No. 4 from Vizianagram on road to Kasipatnam.	165·773	165·834
5/51	BM.26/65 N	44·9	G.T.S. ○ B.M. On W. guard-stone of N. parapet of bridge, midway between mile-stones Nos. 4 and 5 from Vizianagram on road to Kasipatnam.	163·128	163·187
6/51	BM.27/65 N	45·4	G.T.S. B.○M. On top of mile-stone No. 5 from Vizianagram on road to Kasipatnam.	181·369	181·435
7/51	BM.28/65 N	46·1	G.T.S. ○ B.M. On E. guard-stone of N. parapet of bridge, 23 chains E. of mile-stone No. 6 from Vizianagram on road to Kasipatnam.	167·591	167·652
8/51	BM.29/65 N	46·4	G.T.S. ○ B.M. On top of mile-stone No. 6 from Vizianagram on road to Kasipatnam.	180·073	180·139
9/51	BM.30/65 N	46·8	○ B.M. On N.W. corner-stone of plinth of Durga-Amma temple situated on S. margin of road from Vizianagram to Kasipatnam, 35 chains W. of mile-stone No. 6 from Vizianagram.	208·653	208·729
10/51	BM.31/65 N	47·4	G.T.S. ○ B.M. On top of mile-stone No. 7 from Vizianagram on road to Kasipatnam.	226·571	226·654
11/51	BM.32/65 N	47·6	G.T.S. ○ B.M. On E. end of top step of N. flight of steps leading to tank, opposite temple of Malik-Arjun Swami situated at E. end of Guntiara village.	212·907	212·985
12/51	BM.33/65 N	49·3	G.T.S. ○ B.M. at foot of rock on Bor hill, at E. extremity of S. end, 50 feet N. of cart-track to Guntiara and 231 feet E. of indigo factory.	238·561	238·648
13/51	BM.34/65 N	49·6	On upper mark-stone of Bor G. T. Survey Hill Station, lat. 18° 9′ 45″·23, long. 83° 17′ 43″·70. A principal station of East Coast Series. (For full description *see* Synoptical Volume).	466·503	466·673
a/51	BM.35/65 N	41·0	○ G.T.S. B.M. On top of kerb-stone at S.E. corner of Vizianagram tank and on E. side of flight of steps leading to water, about 10 chains W. of S.W. bastion of fort and the Raja's residence.	185·864	185·932

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 20 / 65 N	0·0	G.T.S. □ B.M. at Vizianagram Railway Station. Embedded on S. side of permanent way inspector's quarters, 4 inches below surface of ground, 38 feet W. of S.E. corner of building, 12 feet S. of S.W. corner pillar of verandah, 225 feet from S.E. corner of station building, 143 feet N.E. of iron cylinder of water-tank, and 162 feet from centre of main line of railway.	190·785	190·855
2	BM.36 / 65 N	0·2	G.T.S. B.M. at Vizianagram Railway Station. On coping at N. end of platform. (Railway bench-mark).	196·191	196·263
3	BM 37 / 65 N	0·5	G.T.S. B.M. On E. parapet of bridge, near telegraph post No. 254/16. (Railway bench-mark).	193·760	193·831
4	BM 38 / 65 N	1·0	G.T.S. ○ B.M. On rock *in situ* at crossing of roads from Saluru and Kasipatnam, near N.W. corner of Vizianagram cantonment bazar, 2 chains W. S.W. of Mohidin Khan's house and about ½ mile W. of railway crossing.	217·392	217·471
5	BM.39 / 65 N	1·7	○ G.T.S. B.M. On rock *in situ* at foot of hill and on W. margin of road, 1 chain W. of furlong-stone No. 4 from mile-stone No. 1 from Vizianagram.	237·923	238·010
6	BM.40 / 65 N	2·2	G.T.S. B.○M. On top of mile-stone No. 2 from Vizianagram.	259·444	259·538
7	BM.41 / 65 N	3·2	G.T.S. ○ B.M. On top of mile-stone No. 3 from Vizianagram.	330·722	330·842
8	BM.42 / 65 N	4·2	G.T.S. B.○M. On top of mile-stone No. 4 from Vizianagram.	282·296	282·398
9	BM 43 / 65 N	5·2	G.T.S. B ○M. On top of mile-stone No. 5 from Vizianagram.	319·381	319·496
10	BM.44 / 65 N	6·2	G.T.S. B.○M. On top of mile-stone No. 6 from Vizianagram.	291·427	291·531
11	BM.45 / 65 N	7·2	G.T.S. B.○M. On top of mile-stone No. 7 from Vizianagram.	232·918	233·001
12	BM.46 / 65 N	7·6	B M. ○ On S. guard-stone of W. parapet of culvert, 4 chains N.N.W. of furlong-stone No. 3 from mile-stone No. 7 from Vizianagram.	205·362	205·435
13	BM.47 / 65 N	10·2	G.T.S. B.○M. On top of mile-stone No. 10 from Vizianagram.	262·234	262·327
14	BM.48 / 65 N	10·8	G.T.S. ○ B.M. On rock *in situ* on S.W. side of road, 6 chains S.E. of furlong-stone No. 6 from mile-stone No. 10 from Vizianagram.	224·007	224·087

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
15	BM.49 / 65 N	11·2	○ G.T.S. B.M. On N.W. guard-stone of N.E. parapet of bridge, 2 chains W. of mile-stone No. 11 from Vizianagram.	218·311	218·388
16	BM.50 / 65 N	12·7	G.T.S. ○ B.M. On rock *in situ* on S. margin of road leading from main road to local fund travellers' bungalow at Gajapatinagaram, 82 feet W. of main road and 155 feet E. of E. corner of bungalow.	233·419	233·501
17	BM.51 / 65 N	13·4	G.T.S. □ B.M. at Gajapatinagaram Sub-Magistrate's Court. Embedded in front of building and to left, or N. side, in line with row of prisoners' cells, 8 inches below ground level, 10 and 82 feet respectively from N.W. and S.W. corners of building, 4 feet from wall, and 61 feet S.E. of well within court enclosure. The letters B.M. are cut on stone, let into W. face of row of cells.	220·260	220·337
18	BM.52 / 65 N	15·2	G.T.S. ○ B.M. On rock *in situ* on W. margin of road, 3 chains S. of furlong-stone No. 7 from mile-stone No. 14 from Vizianagram, and about ½ mile W. of village of Madapadu-Agraharam.	253·029	253·118
19	BM.53 / 65 N	19·1	G.T.S. ○ B.M. On 12th step from bottom, or 2nd step from top, of flight of steps, on W. margin of road leading to tank opposite Manapuram village, 1 chain W. of village well.	265·763	265·856
20	BM.54 / 65 N	19·3	B.○M. On top of mile-stone No. 19 from Vizianagram.	272·712	272·807
21	BM.55 / 65 N	19·6	○ B.M. On N. guard-stone of E. parapet of culvert, 29 chains N. of mile-stone No. 19 from Vizianagram.	285·243	285·342
22	BM.56 / 65 N	20·8	○ B.M. On S. guard-stone of E. parapet of culvert, midway between mile-stones Nos. 20 and 21 from Vizianagram.	308·407	308·514
23	BM.57 / 65 N	21·7	G.T.S. □ B.M. at Mardam Chhattram. Embedded on N. side and near N.W. corner, 5 inches below ground level, 9 feet N.E. of N.W. corner of Chhattram, 91 feet from N.E. corner and 7 feet from wall. A stone embedded upright in masonry and adjoining S. side of masonry block, has letters B.M. engraved on its N. face.	344·392	344·511
24	BM.58 / 65 N	23·1	G.T.S. ○ B.M. On N.N.W. guard-stone of E. N.E. parapet of culvert, 14 chains S. S.E. of mile-stone No. 23 from Vizianagram.	395·363	395·500
25	BM.59 / 65 N	23·8	○ B.M. On S. guard-stone of E. parapet of culvert, 2 chains S. of furlong-stone No. 4 from mile-stone No. 23 from Vizianagram.	429·232	429·381
26	BM.60 / 65 N	25·3	G.T.S. ○ B.M. On S.E. guard-stone of N.E. parapet of culvert, 1 chain S. of mile-stone No. 25 from Vizianagram.	426·209	426·356

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
27	BM.61 / 65 N	25·6	○ B.M. On top of S.E. guard-stone of N.E. parapet of culvert, 4 chains N.W. of furlong-stone No. 2 from mile-stone No. 25 from Vizianagram.	415·806	415·950
28	BM 62 / 65 N	27·2	G.T.S. ○ B.M. On S.E. guard-stone of N.E. parapet of culvert, 9 chains S.E. of mile-stone No. 27 from Vizianagram.	429·287	429·435
29	BM.63 / 65 N	28·3	B.○M. On top of mile-stone No. 28 from Vizianagram.	499·748	499·921
30	BM.64 / 65 N	28·7	G.T.S. ○ B.M. On S. guard-stone of W. parapet of culvert, 7 chains N. of furlong-stone No. 2 from mile-stone No. 28 from Vizianagram.	483·005	483·172
31	BM.65 / 65 N	29·3	○ B.M. On top of mile-stone No. 29 from Vizianagram.	483·589	483·755
32	BM.66 / 65 N	29·9	○ G.T.S. B.M. On top of E. guard-stone of N. parapet of culvert, 6 chains W. of junction of road from Bobbili and 4 chains N.E. of well, to E. of Rambhadrapuram village.	446·852	447·006
33	BM.67 / 65 N	31·0	○ B.M. On E. guard-stone of S. parapet of culvert, 16 chains W. of mile-stone No. 1 from Rambhadrapuram.	471·676	471·838
34	BM 68 / 65 N	31·9	○ B.M. On E. guard-stone of S. parapet of culvert, 7 chains W. of mile-stone No. 2 from Rambhadrapuram.	486·100	486·267
35	BM.69 / 65 N	32·8	○ B.M. On E. guard-stone of N. parapet of culvert, 6 chains E. of mile-stone No. 3 from Rambhadrapuram.	486·167	486·334
36	BM 70 / 65 N	32·9	B.○M. On top of mile-stone No. 3 from Rambhadrapuram.	482·932	483·098
37	BM.71 / 65 N	34·7	G T S. ○ B.M. at Saluru Nadi Ford. On top of 7th kerb-stone on S.W. side of road, counting from S.E. side of river, 7 chains S.E. of mile-stone No. 5 from Rambhadrapuram.	467·340	467·500
38	BM.72 / 65 N	34·8	○ B.M. at Saluru Nadi Ford. On top of 8th kerb-stone on S.W. side of road, counting from N.W. side of river, 2 chains N.W. of mile-stone No. 5 from Rambhadrapuram.	475·154	475·317
a / 38	BM.73 / 65 N	35·4	G T.S. ○ B.M. On 3rd step from bottom of N. flight of steps at W. entrance to Saluru hospital.	511·942	512·118

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
39	BM.74 / 65 N	35·4	G.T.S. □ B.M. at Saluru Travellers' Bungalow. Embedded 6 inches below ground level in front or N. side of building to left or E. of flight of steps at entrance, 10 feet E. of lowest step at N. entrance, 19 feet from centre of front door and 5 feet from basement of building. A stone embedded upright in masonry and adjoining S.W. side of masonry block has letters B.M. engraved on its N.E. face.	514·025	514·201
40	BM.75 / 65 N	35·8	B.○M. On top of N.W. boundary-stone of police lines, Saluru, on W. face of which letters M.P. are engraved.	507·841	508·015
a / 40	BM.76 / 65 N	35·8	G.T.S. ○ B.M. at Saluru Sub-Magistrate's Court. On stone pavement of front or N. verandah, near centre and close to wall.	512·074	512·250
41	BM.77 / 65 N	36·1	B.○M. On top of mile-stone No. 6 from Rambhadrapuram.	510·157	510·332
42	BM 78 / 65 N	36·4	G.T.S. ○ B.M. On top of E. guard-stone of N. parapet of culvert, near furlong-stone No. 2 from mile-stone No. 6 from Rambhadrapuram.	520·321	520·499
43	BM 79 / 65 N	37·1	B ○M. On top of mile-stone No. 7 from Rambhadrapuram.	529·288	529·469
44	BM 80 / 65 N	37·7	G.T.S. ○ B.M. On rock *in situ*, 9 feet S. of road at foot of a hill and 7 chains W. S.W. of furlong-stone No. 4 from mile-stone No. 7 from Rambhadrapuram.	579·620	579·819
45	BM.81 / 65 N	38·2	○ G.T.S. B.M. On top of E. guard-stone of S. parapet of culvert, 2 chains S.W. of mile-stone No. 8 from Rambhadrapuram.	585·923	586·124
46	BM.82 / 65 N	39·5	G.T.S. ○ B.M. On W. guard-stone of N. parapet of culvert, near furlong-stone No. 3 from mile-stone No. 9 from Rambhadrapuram.	606·366	606·574
47	BM.83 / 65 N	40·3	G.T.S. ○ B.M. On top of W. guard-stone of S. parapet of culvert, 12 chains S.W. of Itikivalasa P.W.D. inspection bungalow and 5 chains E. of mile-stone No. 0 at foot of ghat.	630·039	630·256
48	BM.84 / 65 N	40·9	G.T.S. ○ B.M. On top of mile-stone No. 0 at foot of ghat near Itikivalasa.	646·999	647·222
49	BM.85 / 65 N	41·1	○ G.T.S. B.M. On rock *in situ* on N. margin of road, 2 chains S.W. of furlong-stone No. 1 from mile-stone No. 0 at foot of ghat near Itikivalasa.	695·448	695·687
50	BM.86 / 65 N	41·4	○ G.T.S. B.M. On rock *in situ* on N. margin of road, 3 chains E. of furlong-stone No. 4 from mile-stone No. 0 at foot of ghat near Itikivalasa.	804·577	804·854
51	BM.87 / 65 N	41·7	○ G.T.S. B.M. On rock *in situ* on N. margin of road, 3 chains W. of furlong-stone No. 6 from mile-stone No. 0 at foot of ghat near Itikivalasa.	901·249	901·559

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
52	BM.88 / 65 N	42·4	G.T.S. ○ B.M. On rock *in situ* on N.W. margin of road, 1 chain S. of furlong-stone No. 4 from mile-stone No. 1 from foot of ghat near Itikivalasa.	1134·195	1134·585
53	BM.89 / 65 N	42·9	○ G.T.S. B.M. On rock *in situ* on E. margin of road, 2 chains S.E. of mile-stone No. 2 from foot of ghat near Itikivalasa.	1283·249	1283·690
54	BM.90 / 65 N	43·3	G.T.S. ○ B.M. On rock *in situ* on N.W. margin of road, 2 chains N.E. of furlong-stone No. 3 from mile-stone No. 2 from foot of ghat near Itikivalasa.	1405·790	1406·274
55	BM.91 / 65 N	43·9	○ G.T.S. B.M. On rock *in situ* on N. margin of road, 30 feet E. of mile-stone No. 3 from foot of ghat near Itikivalasa.	1633·990	1634·552
56	BM 92 / 65 N	44·2	G.T.S. ○ B.M. On rock *in situ* on N. margin of road, 3 chains W. of furlong-stone No. 2 from mile-stone No. 3 from foot of ghat near Itikivalasa.	1725·096	1725·689
57	BM.93 / 65 N	44·9	B.○M. On top of mile-stone No. 4 from foot of ghat near Itikivalasa.	1949·203	1949·873
58	BM.94 / 65 N	45·3	○ G.T.S. B.M. On rock *in situ* on S. margin of road, 2 chains W.S.W. of furlong-stone No. 3 from mile-stone No. 4 from foot of ghat near Itikivalasa.	1927·734	1928·397
59	BM.95 / 65 N	45·9	B.○M. On top of mile-stone No. 5 from foot of ghat near Itikivalasa.	1930·211	1930·875
60	BM.96 / 65 N	46·9	B.○M. On top of mile-stone No. 6 from foot of ghat near Itikivalasa.	1893·138	1893·789
61	BM.97 / 65 N	46·9	G.T.S. ○ B.M. On rock *in situ* on S. margin of road, and on W. side of a mountain stream, 4 chains S.W. of mile-stone No. 6 from foot of ghat near Itikivalasa.	1887·706	1888·355
62	BM 98 / 65 N	47·9	B.○M. On top of mile-stone No. 7 from foot of ghat near Itikivalasa.	1952·746	1953·418
63	BM 99 / 65 N	48·4	○ G.T.S. B.M. On rock *in situ* on E. margin of road, on S. side of a mountain stream, 4 chains S. of furlong-stone No. 4 from mile-stone No. 7 from foot of ghat near Itikivalasa.	1948·940	1949·610
64	BM.100 / 65 N	49·8	B.○M. On top of mile-stone No. 9 from foot of ghat near Itikivalasa.	2022·625	2023·319
65	BM 101 / 65 N	49·9	G.T.S. □ B.M. at Sunki P.W.D. Rest-House. Embedded in front or S.E. side of building, 4½ inches below ground level, 16 and 57 feet respectively from E. and S. corners and 32 feet from centre of front door: a masonry well lies 91 feet E.S.E. of bench-mark. A stone embedded upright in masonry and adjoining W. side of masonry block has letters B.M. engraved on its E. face.	2035·829	2036·527

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
66	BM.102 / 65 N	50·9	B.O.M. On top of mile-stone No. 10 from foot of ghat near Itikivalasa.	2250·820	2251·592
67	BM.103 / 65 N	51·2	O G.T.S. B.M. On rock *in situ* on N. margin of road, 6 chains S.W. of furlong-stone No 2 from mile-stone No. 10 from foot of ghat near Itikivalasa.	2332·675	2333·475
68	BM.104 / 65 N	52·5	G.T.S. O B.M. On rock *in situ* on S.E. margin of road, 4 chains S.W. of furlong-stone No. 5 from mile-stone No. 11 from foot of ghat near Itikivalasa.	2524·606	2525·472
69	BM.105 / 65 N	52·9	O G.T.S. B.M. On rock *in situ* on W. margin of road, 57 feet W. of mile-stone No. 12 from foot of ghat near Itikivalasa.	2524·336	2525·199
70	BM.106 / 65 N	53·9	B.O.M. On top of mile-stone No. 13 from foot of ghat near Itikivalasa.	2650·077	2650·983
71	BM.1 / 65 J	55·0	O G.T.S. B.M. On rock *in situ* on N.W. margin of road, 24 feet S.W. of furlong-stone No. 1 from mile-stone No. 14 from foot of ghat near Itikivalasa.	2814·060	2815·020
72	BM.2 / 65 J	56·3	G.T.S. O B.M. On rock *in situ* in W.N.W. road-drain, 9 feet S. of furlong-stone No. 4 from mile-stone No. 15 from foot of ghat near Itikivalasa.	3034·384	3035·419
73	BM.3 / 65 J	56·6	G.T.S. O B.M. On N.E. guard-stone of bridge over Rayalghada nala.	3056·671	3057·713
74	BM.4 / 65 J	56·7	G.T.S. O B.M. On rock *in situ* flush with ground at S.E. end of Rayalghada village, 19 feet N.E. of road, 2 chains N. of N.E. guard-stone of Rayalghada bridge and midway between village and bridge.	3055·794	3056·836
75	BM.5 / 65 J	56·8	B.O.M. On top of mile-stone No. 16 from foot of ghat near Itikivalasa.	3076·849	3077·895
76	BM.6 / 65 J	57·9	B.O.M. On top of mile-stone No. 17 from foot of ghat near Itikivalasa.	3173·227	3174·306
77	BM.7 / 65 J	58·8	B.O.M. On top of mile-stone No. 18 from foot of ghat near Itikivalasa.	3187·433	3188·517
78	BM.8 / 65 J	59·4	O G.T.S. B.M. On rock *in situ* on N. margin of road from Itikivalasa to Koraput, midway between furlong-stones Nos. 4 and 5 from mile-stone No. 18 from foot of ghat near Itikivalasa.	3343·819	3344·956
79	BM.9 / 65 J	59·9	G.T.S. O B.M. On rock *in situ* on N. margin of road, opposite mile-stone No. 19 from Itikivalasa.	3475·314	3476·496

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
80	BM.10/65 J	61·2	○ G.T.S. B.M. On rock *in situ* on N. margin and at angle of bend in road, 25 chains N.W. of mile-stone No. 20 from Itikivalasa.	3178·420	3179·497
81	BM.11/65 J	61·9	B.○M. On top of mile-stone No. 21 from Itikivalasa.	3035·300	3036·326
82	BM.12/65 J	62·9	G.T.S. ○ B.M. On top of N.W. guard-stone of N.E. parapet of bridge over Pottanghi nala, 4 chains N.W. of mile-stone No 22 from Itikivalasa.	2959·738	2960·738
83	BM.13/65 J	63·6	G.T.S. B.○M. On W. guard-stone of N. parapet of culvert at junction of roads from Tadivalasa and Itikivalasa, 26 chains W. of Pottanghi P.W.D. rest-house and 20 chains E. of mile-stone No. 23 from Itikivalasa.	2976·724	2977·730
1/83	BM 14/65 J	63·9	G.T.S. ○ B.M. On 4th step from bottom of flight of steps at entrance to P.W.D. rest-house enclosure at Pottanghi.	3051·381	3052·412
2/83	BM.15/65 J	63·9	G.T.S. □ B.M. at Pottanghi P.W.D. Rest-House. Embedded within walled enclosure and to right of front or S. entrance to building, 7 inches below ground level, 15 and 65 feet respectively from S.E. and S.W. corners of building, 30 feet from centre of front door and 6 feet from wall of building on which letters B.M. are cut.	3056·183	3057·216
84	BM.16/65 J	63·9	B.○M. On top of mile-stone No. 23 from Itikivalasa.	2978·391	2979·395
85	BM.17/65 J	64·9	B.○M. On top of mile-stone No. 24 from Itikivalasa.	2952·160	2953·155
a/85	BM.18/65 J	65·7	○ G.T.S. B.M. On top of N.W. guard-stone of bridge, 25 chains E. of mile-stone No. 25 from Itikivalasa.	2914·099	2915·081
86	BM.19/65 J	65·9	B.○M. On top of mile-stone No. 25 from Itikivalasa.	2929·433	2930·420
87	BM 20/65 J	66·4	G.T.S. ○ B.M. On top of E. guard-stone of bridge, 36 chains N.W. of mile-stone No. 25 from Itikivalasa.	2909·598	2910·579
88	BM.21/65 J	66·9	B.○M. On top of mile-stone No. 26 from Itikivalasa.	2961·553	2962·551
89	BM.22/65 J	67·9	B.○M. On top of mile-stone No. 27 from Itikivalasa.	2931·785	2932·770
90	BM.23/65 J	68·3	G.T.S. ○ B.M. On rock *in situ* on N.E. margin of road, 19 chains S.E. by S. of Kundili nala bridge, opposite a *pipal* tree on S. margin of road, and 33 chains N.W. of mile-stone No. 27 from Itikivalasa.	2893·696	2894·668

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
91	BM.24 / 65 J	68·6	G.T.S. B.O.M. On top of E. S.E. guard-stone of bridge over Kundili nala, 28 chains S. S.E. of mile-stone No. 28 from Itikivalasa.	2867·148	2868·111
92	BM.25 / 65 J	68·9	B.O.M. On top of mile-stone No. 28 from Itikivalasa.	2878·031	2878·998
93	BM.26 / 65 J	69·9	B.O.M. On top of mile-stone No. 29 from Itikivalasa.	2900·873	2901·848
94	BM.27 / 65 J	70·9	B.O.M. On top of-mile-stone No. 30 from Itikivalasa.	2868·169	2869·133
95	BM.28 / 65 J	71·4	G.T.S. ○ B.M. On N.W. guard-stone of bridge over Punger nala, midway between mile-stones Nos. 30 and 31 from Itikivalasa.	2843·065	2844·020
96	BM.29 / 65 J	72·0	B.O.M. On top of mile-stone No. 31 from Itikivalasa.	2908·305	2909·279
97	BM.30 / 65 J	73·0	O B.M. On top of mile-stone No. 32 from Itikivalasa.	2916·700	2917·677
98	BM.31 / 65 J	73·4	G.T.S. B.O.M. On top of S.W. guard-stone of bridge over Kukraghat nala near Doliamba village and about midway between mile-stones Nos. 32 and 33 from Itikivalasa.	2876·304	2877·267
a / 98	BM.32 / 65 J	74·0	G.T.S. □ B.M. at Doliamba Agency Bungalow. Embedded near N.E. corner, 6 inches below ground level, 6 feet from N.E. corner of building, 30 feet from S.E. corner of basement and 10 feet from centre of bath-room door on E. side. The letters B.M. are cut on E. face of building, near N.E. corner.	2961·349	2962·341
99	BM.33 / 65 J	74·0	B.O.M. On top of mile-stone No. 33 from Itikivalasa.	2953·230	2954·219
100	BM.34 / 65 J	75·0	B.O.M. On top of mile-stone No. 34 from Itikivalasa.	2988·825	2989·823
101	BM.35 / 65 J	75·4	G.T.S. ○ B.M. On top of N.W. guard-stone of bridge, midway between mile-stones Nos. 34 and 35 from Itikivalasa.	2888·707	2889·672
102	BM.36 / 65 J	76·0	B.O.M. On top of mile-stone No. 35 from Itikivalasa.	2976·127	2977·118
103	BM.37 / 65 J	76·6	G.T.S. B.O.M. On top of S.W. guard-stone of bridge over Golagad nadi, midway between mile-stones Nos. 35 and 36 from Itikivalasa.	2902·394	2903·360

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
104	BM.38 / 65 J	77·0	B.O.M. On top of mile-stone No. 36 from Itikivalasa.	2906·373	2907·341
105	BM 39 / 66 J	78·0	G.T.S. ○ B.M. On top of S.E. guard-stone of S.W. parapet of culvert, 5 chains S.E. of mile-stone No. 37 from Itikivalasa.	2902·224	2903·187
106	BM 40 / 65 J	78·0	B.O.M. On top of mile-stone No. 37 from Itikivalasa.	2909·390	2910·356
107	BM.41 / 65 J	79·0	B.O.M. On top of mile-stone No. 38 from Itikivalasa.	2941·112	2942·088
108	BM 42 / 65 J	79·5	B.O.M. On top of furlong-stone No. 4 between mile-stones Nos. 38 and 39 from Itikivalasa.	2992·065	2993·055
109	BM.43 / 65 J	80·0	B.O.M. On top of mile-stone No. 39 from Itikivalasa.	2931·396	2932·366
110	BM.44 / 65 J	80·9	○ G.T.S. B.M. On rock *in situ* on W. margin of road, 15 chains S.S.E. of mile-stone No. 40 from Itikivalasa.	2895·940	2896·896
111	BM.45 / 65 J	81·1	B.O.M. On top of mile-stone No. 40 from Itikivalasa.	2884·013	2884·965
112	BM 46 / 65 J	82·1	G.T.S. ○ B.M. On top of S. corner guard-stone of bridge over Karandi river, opposite village of Ghatigura and 4 chains N. of mile-stone No. 41 from Itikivalasa.	2794·876	2795·798
113	BM.47 / 65 J	83·1	B.O.M. On top of mile-stone No. 42 from Itikivalasa.	2796·435	2797·355
a 113	BM.48 / 65 J	84·0	G.T.S. □ B.M. at Domriput Agency Bungalow. Embedded to left or W. of front entrance to building, 5 inches below ground level, 49 and 27 feet respectively from S. and W. pillars of verandah and 21 feet from centre of front door. A stone embedded upright in masonry and adjoining N.E. side of masonry block has letters B.M. engraved on its S.W. face.	2837·700	2838·634
114	BM.49 / 65 J	84·1	B.O.M. On top of mile-stone No. 43 from Itikivalasa.	2851·745	2852·683
115	BM 50 / 65 J	85·1	B.O.M. On top of mile-stone No. 44 from Itikivalasa.	2836·656	2837·589
116	BM.51 / 65 J	87·1	B.O.M. On top of mile-stone No. 46 from Itikivalasa.	2872·272	2873·217
117	BM.52 / 65 J	88·1	B.O.M. On top of mile-stone No. 47 from Itikivalasa.	2864·801	2865·744

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks			Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
118		BM.53 / 65 J	88·3	○ G.T.S. B.M. On rock *in situ*, 8 feet S. of road and near W. extremity of a rocky hillock, 15 chains W. of mile-stone No. 47 from Itikivalasa.	2830·940	2831·871
119		BM.54 / 65 J	89·1	B.○M. On top of mile-stone No. 48 from Itikivalasa.	2853·500	2854·439
120		BM.55 / 65 J	91·0	○ G.T.S. B.M. On E. parapet of culvert, 15 chains S. of mile-stone No. 50 from Itikivalasa.	2884·464	2885·410
121		BM.56 / 65 J	91·2	B.○M. On top of mile-stone No. 50 from Itikivalasa.	2891·368	2892·316
	a / 121	BM.57 / 65 J	91·5	G.T.S. □ B.M. at Koraput Travellers' Bungalow. Embedded within high walled circular enclosure and near E. corner of building, 6 inches below ground level, 7 feet S. of E. corner of building, and 31 feet E. of S. corner, 42 feet from centre of gate-way and same distance from turnstile leading to outhouses, and 5 feet from S.E. face of building on which letters B.M. are cut.	2901·237	2902·189
	1a / 121	BM.58 / 65 J	91·9	On upper mark-stone of Koraput G.T. Survey Station, lat. 18° 48′ 36″·80, long. 82° 43′ 0″·67. A secondary station of Bilaspur Meridional Series. (For full description *see* Synoptical Volume).	2991·025	2992·006
122		BM.59 / 65 J	92·1	B.○M. On top of mile-stone No. 51 from Itikivalasa.	2932·917	2933·879
123		BM.60 / 65 J	92·6	G.T.S. ○ B.M. On rock *in situ* on top of rise overlooking civil station of Koraput, 29 feet S. of road and 2 chains W. of furlong-stone No. 4 from mile-stone No. 51 from Itikivalasa.	3035·622	3036·615
124		BM.61 / 65 J	93·1	B.○M. On top of mile-stone No. 52 from Itikivalasa.	2971·117	2972·089
125		BM.62 / 65 J	93·8	○ G.T.S. B.M. On rock *in situ* on N. margin of road, 3 chains E.S.E. of culvert, about ½ mile N. of Chapara village.	2932·526	2933·485
126		BM.63 / 65 J	94·1	B.○M. On top of mile-stone No. 53 from Itikivalasa.	2911·715	2912·667
127		BM.64 / 65 J	95·1	B.○M. On top of mile-stone No. 54 from Itikivalasa.	2856·207	2857·138
	a / 127	BM.65 / 65 J	96·1	G.T.S. ○ B.M. On rock *in situ*, 10 feet W. of road, 63 feet E. of large rock at N. extremity of hill round which the road winds, and 5 chains E. of mile-stone No. 55 from Itikivalasa.	2952·435	2953·397
128		BM.66 / 65 J	96·1	B.○M. On top of mile-stone No. 55 from Itikivalasa.	2937·364	2938·321

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
129	BM 67 / 65 J	97·1	B.O.M. On top of mile-stone No. 56 from Itikivalasa.	2822·546	2823·466
130	BM 68 / 65 J	97·5	G.T.S. ○ B.M. On rock *in situ* 18 feet N. of road, opposite Bagaipodor village and S. of Deoghati nala, which runs between village and bench-mark.	2793·478	2794·389
131	BM.69 / 65 J	98·1	B.O.M. On top of mile-stone No. 57 from Itikivalasa.	2791·584	2792·491
132	BM.70 / 65 J	98·7	G.T.S. ○ B.M. On rock *in situ* on N. margin of road, about 1 chain E. of bridge which lies to W. of Deoghati village and 34 chains E. of mile-stone No. 58 from Itikivalasa.	2774·971	2775·873
133	BM.71 / 65 J	99·2	B.O.M. On top of mile-stone No. 58 from Itikivalasa.	2761·921	2762·816
a / 133	BM.72 / 65 J	99·7	○ G.T.S. B.M. On rock *in situ* in road drain on S.W. margin of road, 3 chains N. of furlong-stone No. 4 from mile-stone No. 58 from Itikivalasa.	2723·056	2723·938
134	BM 73 / 65 J	101·3	G.T.S. ○ B.M. On rock at foot of a cliff on W. side of road, 8 chains S.W. of mile-stone No. 60 from Itikivalasa.	2279·033	2279·769
135	BM 74 / 65 J	102·2	B.O.M. On top of mile-stone No. 61 from Itikivalasa.	2046·603	2047·264
136	BM.75 / 65 J	103·2	B.O.M. On top of mile-stone No. 62 from Itikivalasa.	2040·482	2041·141
137	BM.76 / 65 J	104·5	○ G.T.S. B.M. On rock *in situ* on N. margin of road from Koraput to Jeypore, about 10 chains to E. of E. entrance to Jeypore town, and 15 chains E. of temple of Radhakant.	1932·161	1932·785
138	BM.77 / 65 J	105·0	G.T.S. □ B.M. at Sub-Magistrate's Kachahri, Jeypore. Embedded 7 inches below ground level outside walled enclosure, 5 feet from letters B.M. cut on wall and 18 feet to left or S. of centre of gate-way, 43 feet N. N.W. of well bearing inscription—"This well was sunk by Gouraharı Sahu, Deputy Tahsildar of Jeypore in June 1891", and 128 feet from centre of front wall of Police station, which lies on opposite side of road, and in front of kachahri.	1937·829	1938·455
a / 138	BM.78 / 65 J	105·5	Centre of intersection of transverse lines of Latin cross engraved on inscription stone of tomb, erected to the memory of Francis Adams, Lieut. 37th Madras Grenadiers. The tomb is in front of Manager's residence, 1 chain E. of main road and 32 chains N. of Police station, Jeypore.	1952·777	1953·408
139	BM.79 / 65 J	106·2	○ G.T.S. B.M. On rock *in situ* on top of hill at W. end of road which runs along N. side of Jeypore tank, and 3 chains S.E. of Mr. Fletcher's bungalow.	1947·891	1948·520

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
140	BM.80 / 65 J	107·7	G.T.S. ○ B.M. On rock *in situ* in road drain, on E. margin of road from Jeypore to Raigarh, 68 chains S. of Umeri village, at top of rise 20 feet above bridge, which lies 10 chains to N.	1945·293	1945·917
141	BM.81 / 65 J	113·7	○ G.T.S. B.M. On rock *in situ* on W. margin of turn in road, near centre of top of rise, 1 mile N. of Hirdiput travellers' bungalow, and about 10 chains W. of Chargaon.	1910·812	1911·418
142	BM.1 / 65 I	115·4	○ G.T.S. B.M. On rock *in situ*, 50 feet E. of road from Jeypore to Raigarh and about ¼ mile S.W. of Jaitgiri village; at N. foot of high ground, 4 chains N.E. of tank on opposite side of road, and 2 chains N.E. of hillock adjoining N. side of tank.	1911·526	1912·128
a / 142	BM.2 / 65 I	119·1	G.T.S. □ B.M. at Borigumma Agency Bungalow. Embedded within enclosure and on W. side of building, 6 inches below ground level, 16 feet from S.W. corner pillar of verandah, and 26 feet from N.W. corner of building. A stone embedded upright in masonry and adjoining E. side of masonry block has letters B.M. engraved on its W. face.	1937·429	1938·039
b / 142	BM.3 / 65 I	131·6	B.○M. at Naurangapur. On top of stone embedded upright in ground, 2 feet above surface, on E. side of road in front of Palace, and 3 chains from entrance to Palace enclosure.	1862·119	1862·706
143	BM.4 / 65 I	131·6	G.T.S. □ B.M. at Naurangapur Police Station. Embedded between S.W. corner and main road which passes in front of building, 5 inches below ground level, 52 and 10 feet respectively from N.W. and S.W. corners of basement of building and 22 feet from centre of doorway. A stone embedded upright in masonry and adjoining E. side of masonry block has letters B.M. engraved on its W. face.	1868·556	1869·120
144	BM.5 / 65 I	135·9	○ B.M. On top of stone embedded upright in masonry, on W. margin of road from Jeypore to Raigarh, 76 chains S. of Guntat nadi bridge, and ¾ mile E. of Taragaon village. (P.W.D. bench-mark).	1923·268	1923·843
a / 144	BM.6 / 65 I	139·9	G.T.S. □ B.M. at Papadahandi Agency Bungalow. Embedded within enclosure and on N. or front side of building, 7 inches below ground level, 18 feet from N.E. corner pillar of verandah, 31 feet from centre of front door and 13 feet E. of kiosk in front of building. A stone embedded upright in masonry and adjoining S. side of masonry block has letters B.M. engraved on its N. face.	1894·384	1894·951
1a / 144	BM.7 / 65 I	143·8	On top of rectangular protecting pillar of Sirsi G.T. Survey Hill Station, lat. 19° 19′ 39″·21, long. 82° 28′ 16″·57. A principal station of Bilaspur Meridional Series. (For full description *see* Synoptical Volume).	2302·469	2303·159

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
145	BM.8 / 65 I	142·2	○ G.T.S. B.M. On rock *in situ* on N.E. margin of road from Jeypore to Raigarh, 12 chains S.E. of Koliajori nala, 1 mile N.E. of Jamguda village and 2 miles N.W. of Turi river bridge.	1915·553	1916·116
a / 145	BM.9 / 65 I	147·0	○ B.M. On top of P.W.D. bench-mark stone embedded upright in masonry, on S.W. margin of road from Jeypore to Raigarh, 4 miles S.E. of Dabgaon Agency bungalow, 1 mile S.W. of Kenduguda and 1 mile N.W. of Bariguda.	2002·896	2003·485
b / 145	BM.10 / 65 I	150·8	G.T.S. □ B.M. at Dabgaon Agency Bungalow. Embedded within enclosure on N or front side of building, 5 inches below ground level, 28 feet from N.E. corner pillar of verandah, 31 feet from N.E. corner of building, 41 feet from centre of front door and 19 feet E. of kiosk in front of building. A stone embedded upright in masonry and adjoining S. side of masonry block has letters B.M. engraved on its N. face.	1937·814	1938·384
146	BM.11 / 65 I	160·1	G.T.S. □ B.M. at Bijapur Agency Bungalow. Embedded within enclosure and on N. or front side of building, 6 inches below ground level, 22 feet from E. corner pillar of front verandah, 39 feet from centre of front door and 18 feet E. of kiosk in front of building. A stone slab embedded upright in masonry and adjoining S. side of masonry block has letters B.M. engraved on its N. face.	1956·478	1957·034
147	BM.12 / 65 I	164·0	○ G.T.S. B.M. On rock *in situ*, 85 feet W. of road from Jeypore to Raigarh, and 16 feet from E. extremity of base of hill, ¼ mile N.W. of Bhaskel nadi bridge and about 25 chains S.E. of Bidriguda village.	1928·552	1929·096
148	BM.13 / 65 I	170·4	○ G.T.S. B.M. On rock *in situ* on S.W. margin of road from Jeypore to Raigarh, 57 chains S.E. of Umarkot Agency bungalow and opposite Gohbana village.	1991·501	1992·053
149	BM.14 / 65 I	171·2	G.T.S. □ B.M. at Umarkot Agency Bungalow. Embedded within enclosure and on front or S.W. side of building, 3 inches below ground level, 25 and 60 feet respectively from W. and S. corner pillars of verandah of building, and 32 feet from centre of front door. A stone embedded upright in masonry and adjoining N.E. side of masonry block has letters B.M. engraved on its S.W. face.	1991·711	1992·263
1 / 149	BM.15 / 65 I	177·0	○ G.T.S. B.M. On one of a group of rocks *in situ* on site of deserted village of Tilondi, about ¼ mile W. of present village of that name.	2120·395	2120·982
2 / 149	BM.16 / 65 I	179·3	G.T.S. ○ B.M. On rock, about ¼ mile W. of Nakjori village, 14 feet from N.W. extremity of rock which lies on E. margin of cart-track from Tilondi to Hirapur hill.	2193·666	2194·274

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks			Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	3/149	BM.17/65 I	180·5	On top of rectangular protecting pillar of Hirapur G. T. Survey Hill Station, lat. 19° 36′ 14″·99, long. 82° 7′ 7″·24. A principal station of Bilaspur Meridional Series. (For full description *see* Synoptical Volume).	3051·468	3052·313
150		BM.18/65 I	173·2	G.T.S. ○ B.M. On rock *in situ*, 13 feet E. of S.E. corner pile of bridge over Gariajori nala, and 2 miles N.W. of Umarkot Agency bungalow.	2014·918	2015·474
151		BM.19/65 I	173·9	○ G.T.S. B.M. On rock *in situ* on E. side of road from Umarkot to Raigarh, 10 feet from road drain and near site of deserted village of Buthkibera, about 3 miles N.W. of Umarkot and 71 feet N. of rock, 5 feet high, in centre of road.	2041·009	2041·570
152		BM.20/65 I	176·5	○ G.T.S. B.M. On rock *in situ*, 2 miles S.S.E. of Bera Agency bungalow, 5 feet from E. extremity of rock, across W. road-drain, cutting into and narrowing width of road at that spot.	2062·543	2063·106
153		BM.21/65 I	177·4	○ G.T.S. B.M. On rock *in situ* in drain on W. margin of road from Umarkot to Raigarh, 2 miles S.S.E. of Bera Agency bungalow.	2021·708	2022·260
	a/153	BM.22/65 I	178·9	G.T.S. □ B.M. at Bera Agency Bungalow. Embedded within bungalow enclosure and on front or W. side of building, 5 inches below ground level, 30 and 59 feet respectively from N. and S. corner posts of front verandah and 25 feet from centre of front door. A stone embedded upright in masonry and adjoining E. side of masonry block has letters B.M. engraved on its W. face.	2013·913	2014·463
154		BM 23/65 I	185·3	○ G.T.S. B.M. On rock *in situ* on E. margin of road from Umarkot to Raigarh, 16 chains S.E. by S. of Kumli wooden bridge.	2133·431	2134·001
155		BM.24/65 I	188·1	○ G.T.S. B.M. On rock *in situ* on W. margin of road, ½ mile S.E. by E. of Agency bungalow at Raigarh.	2166·234	2166·808
156		BM.25/65 I	188·5	G.T.S. ○ B.M. at Raigarh. On rock *in situ* in front of Agency bungalow, between bungalow and main road.	2150·357	2150·925
157		BM.26/65 I	188·6	G.T.S. □ B.M. at Raigarh Police Out-post. Embedded within enclosure and 5 chains N.W. of Agency bungalow, 4 inches below ground level, 17 and 54 feet respectively from S.E. and N.E. pillars of verandah of thana and 27 feet from centre of front entrance to building. A stone embedded upright in masonry and adjoining W. side of masonry block has letters B.M. engraved on its E. face.	2150·695	2151·263

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1/157	BM.27/65 I	193·1	On top of rectangular protecting pillar of Hathbena G. T. Survey Hill Station, lat. 19° 51′ 42″·34, long. 82° 1′ 25″·96. A principal station of Bilaspur Meridional Series. (For full description *see* Synoptical Volume).	2602·625	2603·312
158	BM.28/65 I	193·1	G.T.S. ○ B.M. On N.W. end of rock *in situ* in drain, on S.W. margin of road from Raigarh to Joringa and about 1 mile E. of Bavi village.	2194·863	2195·438
159	BM.1/65 E	195·9	G.T.S. □ B.M. Embedded on W. side of hill called 'kot' and about 10 chains E. of Joringa village, 3 inches below ground level, on N. side of shed containing a vermilion painted stone dedicated to the goddess Hingalaj Mata, 14 feet from N.E. and N.W. corner posts of shed, 7 chains S. of main road from Raigarh and 1 chain S. of cart-track from village to main road. A stone embedded upright in masonry and adjoining S. side of masonry block has letters B.M. engraved on its N. face.	2157·566	2158·127
a/159	BM.1/64 H	206·7	G.T.S. ○ B.M. On top of rock *in situ*, 5 feet above ground level, on E. side of cart-track to Borai and 12 chains W. of Gotkal village.	2079·766	2080·307
160	BM.2/64 H	207·9	G.T.S. □ B.M. Embedded a few inches below ground level, 3 chains S.E. of junction of cart-tracks from Sihawa, Jeypore and Bastar, 10 chains N. of Dhanteshri-devi temple, 73 feet S. of Sati-ki-mandi, about 7 chains N.E. of Borai *hat* and ¾ mile S.E. of Borai village. A stone embedded upright in masonry and adjoining N. side of masonry block has letters B.M. engraved on its S. face.	2086·643	2087·169
161	BM.3/64 H	210·1	G.T.S. ○ B.M. On rock *in situ* on E. margin of cart-track from Borai to Sihawa, 2 miles N.E. of former village; it is the southernmost one of a group of rocks on top of a swell of ground 2 miles from Kalapani nadi.	2023·036	2023·544
162	BM.4/64 H	212·4	G.T.S. ○ B.M. On top and at N. end of rock in centre of river bed, 39 feet W. of a *barh* tree on E. bank of Kalapani nadi and 43 feet S. of cart-track from Borai to Sihawa.	1860·275	1860·738
163	BM.5/64 H	214·8	○ G.T.S. B.M. On rock *in situ* on N.W. margin of cart-track from Borai to Sihawa, within bend of Chita nadi, 2 miles S.W. of N. ford and 53 chains N.E. of S. ford, and about 1 mile S.W. of junction of cart-tracks from Sihawa and Birgudi to Borai.	1810·838	1811·287
164	BM.6/64 H	224·6	G.T.S. ○ B.M. On rock *in situ* at S.E. end of a group of rocks situated in open cultivated ground, 3 chains N.E. of cart-track from Gatula to Sihawa and ½ mile N.W. of former village.	1461·907	1462·258

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks			Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
165		BM.7 / 64 H	226·9	G.T.S. □ B.M. at Sihawa Police Out-post. Embedded on front or S. side of thana, 7 feet from wall, 3 inches below ground level, 35 and 25 feet respectively from S.W. and S.E. corners of thana and 59 feet N.W. of B.M. No. a/165. The thana is situated at foot of Singari (Shringar Rishi) rock, and on S. face of building letters B.M. are cut.	1424·394	1424·733
	a/165	BM.8 / 64 H	226·9	G.T.S. ○ B.M. at Sihawa well. On S. end of 1st step of W. flight, 1 chain S.E. of Police out-post.	1425·674	1426·013
	b/165	BM.9 / 64 H	229·1	G.T.S. ○ B.M. On rock *in situ*, 10 feet N. of N. margin of cart-track from Sihawa to Gatasili, between Semra village and Gaurapat tank, about 6 chains E. of former and 4 chains W. of latter.	1426·775	1427·115
166		BM.10 / 64 H	230·5	G.T.S. ○ B.M. On rock *in situ* on W. side of cart-track from Sihawa to Gatasili, between cart-track and a conspicuous cluster of rocks, 48 feet from former and 39 feet from highest rock of latter on boundary of Birgudi village of Bastar State, about ¼ mile S.W. of Kutar village. A larger group of rocks lies 3 chains N.E. of bench-mark.	1421·628	1421·962
167		BM.11 / 64 H	236·3	G.T.S. ○ B.M. at Barh-ka-Parao. On rock *in situ*, 2 chains W. of cart-track from Sihawa to Gatasili and 3 chains S.W. of Gotigaon tank.	1438·506	1438·838
168		BM.12 / 64 H	239·7	G.T.S. ○ B.M. On rock *in situ*, 2 feet high, on E. margin of cart-track from Sihawa to Gatasili, 38 chains S. of Ama nadi and about 1 mile S.E. of Gatasili.	1324·891	1325·196
169		BM.13 / 64 H	240·6	G.T.S. □ B.M. at Gatasili. Embedded 3 inches below ground level, 3 chains E. of village, 35 feet N.E. of cart-track to Sihawa, and 39 feet W. of tope situated 4 chains E. of village. A stone slab fixed upright in masonry and adjoining N. side of masonry block has letters B.M. engraved on its S. face.	1340·372	1340·680
170		BM.14 / 64 H	244·2	G.T.S. ○ B.M. On rock *in situ*, the central and highest of a group on S.W. margin of cart-track from Gatasili to Dokal, 3 miles S.E. of Sendor nadi and 2 feet above ground level.	1314·579	1314·878
171		BM.15 / 64 H	245·4	G.T.S. ○ B.M. On rock *in situ*, 2 miles S.E. of Sendor nadi, 22 feet E. of cart-track from Gatasili to Dokal.	1307·065	1307·360
172		BM.16 / 64 H	247·3	○ B.M. On rock *in situ* on S. bank of Sendor nadi and on E. margin of cart-track from Gatasili to Dokal.	1235·466	1235·744

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
173	BM.17 / 64 H	249·0	G.T.S. ○ B.M. On rock *in situ* on N. margin of cart-track, 2 miles S. of Dokal and 2 chains W. of N. end of road-cutting which descends to Sendor nadi, about 2 miles distant.	1350·143	1350·445
a / 173	BM.18 / 64 H	250·6	G.T.S. □ B.M. at Dokal. Embedded on N. side of temple of Jagannath, 6 feet from wall, 7 inches below ground level, within enclosure of temples of Jagannath and Mahadeo which are situated on W. *band* of tank, 9 feet from N.W. and N.E. corners of former and 9 feet from centre of door-way of latter. The letters B.M. are cut on N. face of Jagannath's temple.	1325·910	1326·207
174	BM.19 / 64 H	251·6	G.T.S. ○ B.M. On rock *in situ* on S. margin of cart-track from Dokal to Kumra, 10 chains W. of a nala, and 1 mile N.W. of Dokal.	1316·005	1316·297
175	BM.20 / 64 H	254·2	G.T.S. ○ B.M. On rock *in situ* on top of high ground in lands of Kharada village, at N.W. end of loop in cart-track where track along top of rise is divided into two branches.	1267·793	1268·073
176	BM.21 / 64 H	258·3	G.T.S. ○ B.M. On rock *in situ*, about 6 chains E. of Banbagoud village, on S. side of cart-track to Dhamtari and on W. bank of Kumri nala.	1075·970	1076·207
177	BM.22 / 64 H	260·3	G.T.S. □ B.M. at Kukrel. Embedded in Gond burial ground and *hat*, 4 inches below ground level, 12 chains W. of village and 34 feet S. of junction of cart-track from village with main cart-track to Dhamtari. A stone embedded upright in masonry and adjoining S. side of masonry block has letters B.M. engraved on its N. face.	1085·195	1085·433
178	BM.23 / 64 H	261·0	○ G.T.S. B.M. On top of stone fixed upright in ground, close to a pile of stones on S. margin of cart-track to Dhamtari, marking the boundary of Kukrel village from which it is distant about 1 mile W.N.W.	1109·308	1109·551
179	BM.24 / 64 H	262·3	○ G.T.S. B.M. On rock *in situ* on S. margin of nala which crosses cart-track to Dhamtari, about ½ mile S.W. of Siadi, and 80 feet W. of a pile of stones marking the boundary of Siadi village.	1077·662	1077·897
180	BM.25 / 64 H	263·0	○ G.T.S. B.M. On top of stone slab fixed upright in ground, 1 chain W. of cart-track from Sihawa to Dhamtari, between a low masonry pillar and a pile of stones, 3 feet E. of former and 29 feet W. of latter, marking the boundary of Bhoina village from which it is distant about 2 miles S.E.	1109·225	1109·467
181	BM.26 / 64 H	265·7	G.T.S. ○ B.M. On stone slab dedicated to Sahada Deo, midway between two hamlets of Achota and on E. margin of cart-track to Dhamtari, 45 feet from W. margin of same.	1060·707	1060·937

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks			Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/181	BM.27/64 H	267·8	G.T.S. ○ B.M. On W. corner of basement of Mahadeo's temple, on N. embankment of Mata tank, Dhamtari.	1054·453	1054·682
182		BM.28/64 H	268·0	B.↑M. at Bilai-Mata Temple, Dhamtari. On top of stone slab embedded upright in ground, 167 feet S. of temple and 44 feet E. of cart-track from Achota ferry. (P.W.D. bench-mark).	1051·428	1051·654
	a/182	BM.29/64 H	268·8	G.T.S. ○ B.M. On stone coping of old rain-gauge pillar in centre of Tahsil kachahri enclosure, Dhamtari.	1071·836	1072·066
183		BM.30/64 H	269·1	G.T.S. B.○M. On E. corner of lowest step of front entrance to Dhamtari travellers' bungalow.	1046·224	1046·449
	a/183	BM.31/64 H	269·1	G.T.S. □ B.M. at Dhamtari Travellers' Bungalow. Embedded on E. side of building, 6 inches below ground level, 20 feet from S.E. corner of building and N.E. corner of verandah, and 6 feet from wall on which letters B.M. are cut below window.	1045·189	1045·414
184		BM.32/64 H	269·2	G.T.S. ○ B.M. On S.E. corner of basement of Mahadeo's temple, Dhamtari, on W. embankment of Makaiband tank: a P.W.D. bench-mark (□/∧) cut on S.W. corner of basement is 0·212 foot higher. The temple is the northern one of two near S.W. corner of tank.	1050·344	1050·569
185		BM.33/64 H	270·1	B.○M. On top of mile-stone No. 47 from Raipur.	1047·705	1047·929
186		BM 34/64 H	271·1	B.○M. On top of mile-stone No. 46 from Raipur.	1042·783	1043·005
187		BM.35/64 H	272·1	B.○M. On top of mile-stone No. 45 from Raipur.	1041·558	1041·779
188		BM 36/64 H	273·1	B.○M. On top of mile-stone No. 44 from Raipur.	1046·900	1047·122
189		BM.37/64 H	274·1	B.○M. On top of mile-stone No. 43 from Raipur.	1052·152	1052·375
190		BM.38/64 H	275·1	B.○M. On top of mile-stone No. 42 from Raipur.	1047·120	1047·341
191		BM.39/64 H	276·1	B.○M. On top of mile-stone No. 41 from Raipur.	1043·172	1043·392
192		BM.40/64 H	277·1	B.○M. On top of mile-stone No. 40 from Raipur.	1037·881	1038·100
193		BM.41/64 H	278·1	B.○M. On top of mile-stone No. 39 from Raipur.	1038·083	1038·301

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
194	BM.42 / 64 H	279·1	B.O.M. On top of mile-stone No. 38 from Raipur.	1030·174	1030·390
195	BM.43 / 64 H	280·1	B.O.M. On top of mile-stone No. 37 from Raipur.	1026·435	1026·649
196	BM.44 / 64 H	281·1	B.O.M. On top of mile-stone No. 36 from Raipur.	1032·837	1033·053
197	BM.45 / 64 H	282·1	B.O.M. On top of mile-stone No. 35 from Raipur.	1032·088	1032·303
198	BM.46 / 64 H	283·1	B.O.M. On top of mile-stone No. 34 from Raipur.	1029·934	1030·147
1/198	BM 47 / 64 H	284·2	G.T.S. □ B.M. at Kurud. Embedded on N. side of Ramchandra's temple (Ram Mandir), 6 inches below ground level, 9 and 7 feet respectively from N.E. and N.W. corners of Jagmohan Mandap, 4 feet from N. face of Mandap on which letters B.M. are cut, and 13 feet from centre of basement of temple in which the image of the god is located.	1007·572	1007·781
199	BM.48 / 64 H	284·1	B.O.M. On top of mile-stone No. 33 from Raipur.	1024·739	1024·951
200	BM.49 / 64 H	285·1	B.O.M. On top of mile-stone No. 32 from Raipur.	1029·375	1029·585
201	BM 50 / 64 H	286·1	B.O.M. On top of mile-stone No. 31 from Raipur.	1036·287	1036·498
202	BM.51 / 64 H	287·1	B.O.M. On top of mile-stone No. 30 from Raipur.	1029·894	1030·104
203	BM 52 / 64 H	288·1	B.O.M. On top of mile-stone No. 29 from Raipur.	1033·565	1033·776
204	BM.53 / 64 H	289·1	B.O.M. On top of mile-stone No. 28 from Raipur.	1036·557	1036·768
205	BM.54 / 64 H	290·1	B.O.M. On top of mile-stone No. 27 from Raipur.	1028·378	1028·586
206	BM 55 / 64 H	291·1	B.O.M. On top of mile-stone No. 26 from Raipur.	1016·471	1016·675
207	BM 56 / 64 H	292·1	B.O.M. On top of mile-stone No. 25 from Raipur.	1028·701	1028·907
208	BM.57 / 64 H	293·1	B.O.M. On top of mile-stone No. 24 from Raipur.	1008·909	1009·110

Main-Line 37. (Vizianágram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
209	BM.58/64 H	294·0	G.T.S. □ B.M. at Darba P.W.D. Inspection Hut. Embedded a few inches below ground level, 2 chains S. of centre of S.W. face of hut, 4 chains S.S.W. of mile-stone No. 23 from Raipur, about 10 chains N.W. of Darba village, 45 feet from main road and 8 feet S.E. by S. of letters B.M. cut on stone embedded in parapet of a brick masonry well.	1012·878	1013·079
210	BM.59/64 H	294·1	B.O.M. On top of mile-stone No. 23 from Raipur.	1014·421	1014·622
211	BM.60/64 G	295·1	B.O.M. On top of mile-stone No. 22 from Raipur.	1012·966	1013·166
212	BM.51/64 G	296·1	B.O.M. On top of mile-stone No. 21 from Raipur.	1013·431	1013·630
213	BM.52/64 G	297·1	B.O.M. On top of mile-stone No. 20 from Raipur.	1028·497	1028·697
214	BM.53/64 G	298·1	B.O.M. On top of mile-stone No. 19 from Raipur.	1040·598	1040·800
215	BM.54/64 G	299·1	B.O.M. On top of mile-stone No. 18 from Raipur.	1057·002	1057·206
a/215	BM.55/64 G	299·4	G.T.S. □ B.M. at Abhanpur Police Thana. Embedded on S. side and near S.E. corner of building, a few inches below ground level, 5 and 33 feet respectively from S.E. and S.W. corners of building, and 4 feet from S. face of thana on which letters B.M. are cut.	1065·634	1065·840
216	BM.56/64 G	300·1	B.O.M. On top of mile-stone No. 17 from Raipur.	1060·554	1060·758
217	BM.57/64 G	301·1	B.O.M. On top of mile-stone No. 16 from Raipur.	1066·137	1066·341
218	BM.58/64 G	302·1	B.O.M. On top of mile-stone No. 15 from Raipur.	1052·904	1053·104
219	BM.59/64 G	303·1	B.O.M. On top of mile-stone No. 14 from Raipur.	1051·571	1051·771
220	BM.60/64 G	304·1	B.O.M. On top of mile-stone No. 13 from Raipur.	1030·318	1030·513
221	BM.61/64 G	305·1	B.O.M. On top of mile-stone No. 12 from Raipur.	1026·795	1026·988
222	BM.62/64 G	306·1	B.O.M. On top of mile-stone No. 11 from Raipur.	1045·671	1045·867

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
223	BM.63 / 64 G	307·1	B.O.M. On top of mile-stone No. 10 from Raipur.	1016·504	1016·692
224	BM 64 / 64 G	308·1	B.O.M. On top of mile-stone No. 9 from Raipur.	1016·721	1016·909
225	BM.65 / 64 G	308·5	B.O.M. On coping of parapet of a well on N. side of main road from Dhamtari to Raipur and 3 chains S. of Mana village school.	1007·907	1008·093
a / 225	BM 66 / 64 G	308·6	G.T.S. □ B.M. at Mana Village School. Embedded on front side near W. corner of school, a few inches below ground level, 4 feet from W. corner pillar of verandah on which letters B.M. are cut, 5 feet from W corner of basement, 26 feet from centre of front or S. door of building, and 3 chains from masonry well on N. side of main road from Dhamtari to Raipur.	1003·156	1003·342
226	BM 67 / 64 G	309·1	B.O.M. On top of mile-stone No. 8 from Raipur.	992·961	993·144
227	BM.68 / 64 G	310·1	B.O.M. On top of mile-stone No. 7 from Raipur.	995·216	995·399
228	BM 69 / 64 G	311·1	B.O.M. On top of mile-stone No. 6 from Raipur.	974·347	974·525
229	BM 70 / 64 G	312·1	B.O.M. On top of mile-stone No. 5 from Raipur.	974·635	974·813
230	BM 71 / 64 G	313·1	B.O.M. On top of mile-stone No. 4 from Raipur.	964·145	964·320
231	BM.72 / 64 G	314·1	B.O.M. On top of mile-stone No. 3 from Raipur.	960·072	960·247
232	BM 73 / 64 G	315·9	G.T.S. ○ B.M. On stone coping of E. parapet of culvert in front of Government High School, Raipur, and between it and reservoir.	997·907	998·088
233	BM 74 / 64 G	316·0	G.T.S. ○ B.M. On S.W. corner of stone step at W. entrance to Raipur Club.	993·726	993·906
1 / 233	BM 75 / 64 G	316·5	G.T.S. Standard Bench Mark 1909 at Raipur. Surrounded by iron railing and situated in compound of (P.W.D.) Divisional office, 57 feet from parapet of pakka well in compound, 152 feet from N.E. corner of 1st step from bottom of front verandah of Executive Engineer's office, and 73 feet from S. pillar of entrance gate.	997·465	997·646

Main-Line 37. (Vizianagram to Raipur).

Designation of Bench-marks		Distance from Vizianagram	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
234	BM.76 / 64 G	316·3	G.T.S. ○ B.M. On S. end of 2nd step from bottom at W. entrance to Raipur Museum, near S. stone pillar.	982·819	982·997
235	BM.77 / 64 G	316·5	G.T.S. ○ B.M. at Victoria Town Hall, Raipur. On W. end of 2nd step from bottom of central flight of steps on S. side of building.	974·037	974·213
236	BM.78 / 64 G	316·9	G.T.S. ○ B.M. On masonry base of wooden ladder leading up to Anemometer of Central Jail Meteorological Observatory, Raipur, 67 chains from railway station.	966·078	966·253
237	BM.79 / 64 G	317·6	G.T.S. ○ B.M. On N. parapet of culvert on high road from Raipur Railway Station to Cantonment, 17 chains E. of railway station.	944·416	944·587
238	BM.44 / 64 G	317·8	G.T.S. B.M. □ at Raipur Railway Station. Embedded at N. side of station, between windows of telegraph office and store-room, 1 foot from wall, and 9 inches below level of platform; 14 feet from N.E. and 16 feet from N.W. corners of station building, 47 feet from edge of platform, and 30 feet from home semaphore. The letters B.M. are cut on N. face of station building.	958·747	958·920

Main-Line 38. (Raipur to Bilaspur).

Designation of Bench-marks		Distance from Raipur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM 44 / 64 G	0·0	G.T.S. B.M. □ at Raipur Railway Station. Embedded at N. side of station, between windows of telegraph office and store-room, 1 foot from wall, and 9 inches below level of platform; 14 feet from N.E. and 16 feet from N.W. corners of station building, 47 feet from edge of platform, and 30 feet from home semaphore. The letters B.M. are cut on N. face of station building.	958·747	958·920
2	BM 80 / 64 G	0·8	G.T.S. ○ B.M. On E. cap of S. abutment of bridge, near telegraph post No. $\frac{188}{10}$, and 33 chains N. of mile-post No. 188 from Nagpur.	935·315	935·483
3	BM 81 / 64 G	2·2	G.T.S. ○ B.M. On coping of W. parapet of culvert, near telegraph post No. $\frac{189}{18}$, and 23 chains S. of mile-post No. 190 from Nagpur.	922·852	923·017
4	BM.82 / 64 G	3·4	G.T.S. ○ B.M. On centre of N.W. parapet of culvert, near telegraph post No. $\frac{190}{24}$, and 2 chains S.W. of mile-post No. 191 from Nagpur.	898·455	898·616
5	BM 83 / 64 G	4·5	G.T.S. ○ B.M. On N.W. cap of S.W abutment of Sokra bridge, near telegraph post No. $\frac{192}{2}$, and 4 chains N.E. of mile-post No. 192 from Nagpur.	897·749	897·909
6	BM 84 / 64 G	6·0	G.T.S. ○ B.M. On coping of S.E. parapet, over 1st arch from N.E. side of culvert, near telegraph post No. $\frac{193}{13}$, and midway between mile-posts Nos. 193 and 194 from Nagpur.	914·126	914·288
7	BM 85 / 64 G	7·0	G.T.S. ○ B.M. On N.W. parapet of culvert, near telegraph post No. $\frac{194}{13}$, and 36 chains S.W. of Mandhar Railway Station.	924·434	924·597
8	BM.86 / 64 G	7·5	G.T.S. ○ B.M. On platform coping opposite booking office at Mandhar Railway Station.	929·289	929·453
9	BM 87 / 64 G	7·5	G.T.S. B.M. □ at Mandhar Railway Station. Embedded at N.E. side of station platform, 2 feet from wall, and 6 inches below platform level; 20 feet from E. and 8 feet from N. corners of station building, 41 feet from edge of platform, and 22 feet from home semaphore. The letters B.M. are cut on N.E. face of building.	929·333	929·497
10	BM.88 / 64 G	8·4	G.T.S. ○ B.M. On N.W. parapet of S.W. abutment of bridge, near telegraph post No. $\frac{195}{21}$, and 5 chains S.W. of mile-post No. 196 from Nagpur.	911·305	911·464

Main-Line 38. (Raipur to Bilaspur).

Designation of Bench-marks		Distance from Raipur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
11	BM.89 / 64 G	10·2	G.T.S. ○ B.M. On S.S.W. end of W.N.W. parapet of culvert, near telegraph post No. $\frac{197}{18}$, and 22 chains S.S.W. of mile-post No. 198 from Nagpur.	895·388	895·544
12	BM.90 / 64 G	11·2	G.T.S. ○ B.M. On coping of W. cut-water of S. abutment of Kulhan bridge, near telegraph post No. $\frac{198}{19}$, and 16 chains S. of mile-post No. 199 from Nagpur.	885·198	885·351
13	BM.91 / 64 G	12·4	G.T.S. ○ B.M. On top of W. wall of S. abutment of bridge, near telegraph post No. $\frac{199}{23}$, and 7 chains S. of mile-post No. 200 from Nagpur.	880·898	881·050
14	BM.92 / 64 G	13·5	G.T.S. ○ B.M. On W. parapet of culvert, near telegraph post No. $\frac{201}{2}$, and 5 chains N. of mile-post No. 201 from Nagpur.	886·814	886·966
15	BM.93 / 64 G	14·6	G.T.S. ○ B.M. On platform coping opposite booking office at Sil-yari Railway Station.	911·105	911·260
16	BM.94 / 64 G	14·6	G.T.S. B.M. □ at Sil-yari Railway Station. Embedded at N. side of station, 2 feet from wall, and 6 inches below platform level; 8 feet from N.W. and 20 feet from N.E. corners of station building, and 36 feet from edge of platform. The letters B.M. are cut on N. face of building.	911·186	911·341
17	BM.95 / 64 G	15·7	G.T.S. ○ B.M. On W. N.W. cap of S. S.W. abutment of bridge, near telegraph post No. $\frac{203}{6}$, and 28 chains N.N.E. of mile-post No. 203 from Nagpur.	914·605	914·760
18	BM.96 / 64 G	17·1	G.T.S. ○ B.M. On W. parapet of S. abutment of bridge, near telegraph post No. $\frac{204}{15}$, and 30 chains S. of mile-post No. 205 from Nagpur.	926·803	926·959
19	BM.97 / 64 G	18·4	G.T.S. ○ B.M. On W. end of S. abutment of bridge, near telegraph post No. $\frac{205}{23}$, and 3 chains S. of mile-post No. 206 from Nagpur.	915·904	916·056
20	BM.98 / 64 G	19·3	G.T.S. ○ B.M. On W. wall of N. abutment of bridge, near telegraph post No. $\frac{206}{20}$, and 13 chains S. of mile-post No. 207 from Nagpur.	924·669	924·823

Main-Line 38. (Raipur to Bilaspur).

Designation of Bench-marks		Distance from Raipur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
21	BM 99 / 64 G	20·4	G.T.S. ○ B.M. On W. cap of N. abutment of bridge, near telegraph post No. $\frac{207}{22}$, and 10 chains S. of mile-post No. 208 from Nagpur.	916·414	916·565
22	BM 100 / 64 G	21·7	G.T.S. ○ B.M. On E. end of N. abutment of bridge, near telegraph post No. $\frac{209}{6}$, and 19 chains N. of mile-post No. 209 from Nagpur.	923·419	923·570
23	BM.101 / 64 G	22·6	G.T.S. ○ B.M. On E. end of N. abutment of bridge, near telegraph post No. $\frac{210}{4}$, and 12 chains N. of mile-post No. 210 from Nagpur.	923·620	923·771
24	BM.102 / 64 G	23·5	G.T.S. ○ B.M. On platform coping opposite booking office at Tilda Railway Station.	947·156	947·309
25	BM.103 / 64 G	23·6	G.T.S. B.M. □ at Tilda Railway Station. Embedded at N. side of station, 2 feet from wall, and 6 inches below platform level; 15 feet from N.E. and 13 feet from N.W. corners of station building, 46 feet from edge of platform, and 26 feet from home semaphore. The letters B.M. are cut on N. face of station.	947·591	947·745
26	BM.104 / 64 G	24·6	G.T.S. ○ B.M. On W. cap of S. abutment of bridge, near telegraph post No. $\frac{212}{3}$, and 10 chains N. of mile-post No. 212 from Nagpur.	930·168	930·319
27	BM.105 / 64 G	25·3	G.T.S. ○ B.M. On W. cap of N. abutment of bridge, near telegraph post No. $\frac{212}{20}$, and 14 chains S. of mile-post No. 213 from Nagpur.	928·740	928·889
28	BM.106 / 64 G	27·3	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge, near telegraph post No. $\frac{214}{19}$, and 18 chains S.W. of mile-post No. 215 from Nagpur.	917·339	917·486
29	BM.107 / 64 G	28·2	G.T.S. ○ B.M. On N.E. end of S.E. parapet of bridge, near telegraph post No. $\frac{215}{17}$, and 26 chains S.W. of mile-post No. 216 from Nagpur.	917·063	917·209
30	BM.108 / 64 G	29·4	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge, near telegraph post No. $\frac{216}{20}$, and 12 chains S.W. of mile-post No. 217 from Nagpur.	907·754	907·897

Main-Line 38. (Raipur to Bilaspur).

Designation of Bench-marks		Distance from Raipur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
31	BM.109 / 64 G	30·2	G.T.S. ○ B.M. On platform coping opposite booking office at Hatbandh Railway Station.	922·286	922·431
32	BM.110 / 64 G	30·2	G.T.S. B.M. □ at Hatbandh Railway Station. Embedded at N.E. side of station, 2 feet from wall, and 6 inches below surface of platform; 12 feet from E. and 17 feet from N. corners of station building, 50 feet from edge of platform, and 30 feet from home semaphore. The letters B.M. are cut on N.E. face of building.	922·179	922·324
33	BM.111 / 64 G	31·6	G.T.S. ○ B.M. On N.W. cap of S.W. abutment of bridge, near telegraph post No. 219/1, and 2 chains N.E. of mile-post No. 219 from Nagpur.	927·630	927·775
34	BM.112 / 64 G	32·9	G.T.S. ○ B.M. On N.W. cap of S.W. abutment of bridge, near telegraph post No. 220/7, and 22 chains S.W. of mile-post No. 220 from Nagpur.	916·706	916·849
35	BM.113 / 64 G	34·1	G.T.S. ○ B.M. On N.W. cap of S.W. abutment of bridge, near telegraph post No. 221/13, and 38 chains S.W. of mile-post No. 222 from Nagpur.	902·738	902·878
36	BM.114 / 64 G	35·0	G.T.S. ○ B.M. On S.W. end of N.W. parapet of culvert, near telegraph post No. 222/11, and 35 chains N.E. of mile-post No. 222 from Nagpur.	914·253	914·394
37	BM.115 / 64 G	36·2	G.T.S. ○ B.M. On N.W. cap of N.E. abutment of bridge, near telegraph post No. 223/19, and 33 chains S.W. of mile-post No. 224 from Nagpur.	894·203	894·340
38	BM.116 / 64 G	37·7	G.T.S. ○ B.M. On N.E. end of N.W. parapet of culvert, near telegraph post No. 225/1, and 3 chains N.E. of mile-post No. 225 from Nagpur.	892·428	892·564
39	BM.117 / 64 G	38·8	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge, near telegraph post No. 226/4, and 13 chains N.E. of mile-post No. 226 from Nagpur.	885·739	885·873
40	BM.118 / 64 G	39·7	G.T.S. ○ B.M. On platform coping opposite booking office at Bhatapara Railway Station.	887·431	887·565

Main-Line 38. (Raipur to Bilaspur).

Designation of Bench-marks		Distance from Raipur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
41	BM.119 / 64 G	39·8	G.T.S. B.M. □ at Bhatapara Railway Station. Embedded at N.E. side of station, 2 feet from wall, and 7 inches below surface of platform; 12 feet from E. and 16 feet from N. corners of station building, 44 feet from edge of platform, and 25 feet from home semaphore. The letters B.M. are cut on N.E. face of station building.	887·469	887·603
42	BM.120 / 64 G	40·1	G.T.S. ○ B.M. On S.E. cap of S.W. abutment of bridge, near telegraph post No. 227/11, 36 chains N.E. of mile-post No. 227 from Nagpur, and 29 chains N.E. of Bhatapara Railway Station.	889·933	890·067
43	BM 121 / 64 G	40·9	G.T.S. ○ B.M. On S.E. cap of S.W. abutment of bridge, near telegraph post No. 228/6, and 20 chains N.E. of mile-post No. 228 from Nagpur.	894·379	894·513
44	BM.122 / 64 G	42·4	G.T.S. ○ B.M. On S.E. cap of S.W. abutment of bridge, near telegraph post No. 229/19, and 19 chains S.W. of mile-post No. 230 from Nagpur.	871·325	871·455
45	BM 123 / 64 G	43·7	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge, near telegraph post No. 230/24, and 2 chains S.W. of mile-post No. 231 from Nagpur.	874·467	874·596
46	BM.1 / 64 K	44·7	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge, near telegraph post No. 232/1, and 1 chain N.E. of mile-post No. 232 from Nagpur.	870·492	870·620
47	BM.2 / 64 K	46·1	G.T.S. ○ B.M. On N.E. end of S.E. parapet of bridge, near telegraph post No. 233/10, and 30 chains N.E. of mile-post No. 233 from Nagpur.	872·918	873·045
48	BM.3 / 64 K	46·7	G.T.S. ○ B.M. On N.E. end of S.E. parapet of bridge, near telegraph post No. 233/23, and 4 chains S.W. of mile-post No. 234 from Nagpur.	879·072	879·200
49	BM.4 / 64 K	47·9	G.T.S. ○ B.M. On E.S.E. cap of S.S.W. abutment of bridge, near telegraph post No. 235/6, and 18 chains N.N.E. of mile-post No. 235 from Nagpur.	865·595	865·721

Main-Line 38. (Raipur to Bilaspur).

Designation of Bench-marks		Distance from Raipur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
50	BM.5 / 64 K	48·9	G.T.S. ○ B.M. On platform coping opposite booking office at Nipania Railway Station.	848·819	848·941
51	BM.6 / 64 K	48·9	G.T.S. B.M. □ at Nipania Railway Station. Embedded at N.E. side of station, 3 feet from wall, and 6 inches below surface of platform; 15 feet from E. and 13 feet from N. corners of station building, 47 feet from edge of platform, and 27 feet from home semaphore. The letters B.M. are cut on N.E. face of station building.	848·982	849·104
52	BM.7 / 64 K	50·4	G.T.S. ○ B.M. On S.S.W. end of W.N.W. parapet of culvert, near telegraph post No. 237/15, and 33 chains S.S.W. of mile-post No. 238 from Nagpur.	823·787	823·905
53	BM.8 / 64 K	52·1	G.T.S. ○ B.M. On E. end of S. abutment of Seonath bridge, 27 chains N. of mile-post No. 239 from Nagpur.	819·332	819·448
54	BM.9 / 64 K	52·5	G.T.S. ○ B.M. On E. end of N. abutment of Seonath bridge, 21 chains S. of mile-post No. 240 from Nagpur.	819·371	819·486
55	BM 10 / 64 K	54·3	G.T.S. ○ B.M. On E. cap of N. abutment of bridge, near telegraph post No. 241/14, and 36 chains S. of mile-post No. 242 from Nagpur.	835·820	835·937
56	BM.11 / 64 K	56·0	G.T.S. ○ B.M. On E. cap of N. abutment of bridge, near telegraph post No. 243/5, and 16 chains N. of mile-post No. 243 from Nagpur.	851·975	852·093
57	BM.12 / 64 K	57·2	G.T.S. ○ B.M. On E. cap of N. abutment of bridge, near telegraph post No. 244/9, and 30 chains N. of mile-post No. 244 from Nagpur.	859·899	860·017
58	BM.13 / 64 K	58·3	G.T.S. ○ B.M. On N. end of E. parapet of bridge, near telegraph post No. 245/11, and 38 chains N. of mile-post No. 245 from Nagpur.	875·038	875·157
59	BM.14 / 64 K	58·7	G.T.S. ○ B.M. On platform coping opposite booking office at Belha Railway Station.	877·584	877·703
60	BM.15 / 64 K	58·8	G.T.S. B.M. □ at Belha Railway Station. Embedded at N.E. side of station, 3 feet from wall, and 6 inches below surface of platform; 14 feet from E. and 15 feet from N. corners of station building, 41 feet from edge of platform, and 23 feet from home semaphore. The letters B.M. are cut on N.E. face of station building.	877·577	877·696

Main-Line 38. (Raipur to Bilaspur).

Designation of Bench-marks			Distance from Raipur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
61		BM.16 / 64 K	59·6	G.T.S. ○ B.M. On W.N.W. cap of S.S.W. abutment of bridge, near telegraph post No. 246/19, and 19 chains S.S.W. of mile-post No. 247 from Nagpur.	876·096	876·214
62		BM.17 / 64 K	60·9	G.T.S. ○ B.M. On W.N.W. cap of S.S.W. abutment of bridge, near telegraph post No. 248/2, and 6 chains N.N.E. of mile-post No. 248 from Nagpur.	893·782	893·902
	a/62	BM 1 / 64 J	62·5	On top surface of pillar of Bodri G.T. Survey Tower Station, lat. 22° 0′ 22″·34, long. 82° 6′ 27″·31. A principal station of Bilaspur Meridional Series. (For full description *see* Synoptical Volume).	945·939	946·066
63		BM.2 / 64 J	64·2	G.T.S. ○ B.M. On E. cap of N. abutment of bridge, near telegraph post No. 251/4, and 13 chains N. of mile-post No. 251 from Nagpur.	885·746	885·863
64		BM.3 / 64 J	65·2	G.T.S. ○ B.M. On E. cap of N. abutment of bridge, near telegraph post No. 252/2, and 7 chains N. of mile-post No. 252 from Nagpur.	880·212	880·327
65		BM.4 / 64 J	66·1	G.T.S. ○ B.M. On W.N.W. cap of N.N.E. abutment of bridge, near telegraph post No. 253/2, and 7 chains N.N.E. of mile-post No. 253 from Nagpur.	880·731	880·846
66		BM 5 / 64 J	66·5	G.T.S. ○ B.M. On W.N.W. cap of N.N.E. abutment of bridge, near telegraph post No. 253/11, and 35 chains N.N.E. of mile-post No. 253 from Nagpur.	880·048	880·162
67		BM.6 / 64 J	67·4	G.T.S. ○ B.M. On N. cap of E. abutment of culvert, near telegraph post No. 254/11, and 30 chains E. of mile-post No. 254 from Nagpur.	880·789	880·904
68		BM 7 / 64 J	68·9	G.T.S. ○ B.M. On platform coping of Bilaspur Railway Station, 1 chain W. of B.M. No. 69.	883·607	883·722
69		BM 8 / 64 J	68·9	G.T.S. B.M. □ at Bilaspur Railway Station. Embedded in foundation of station building, at S.W. corner of 2nd pillar (counting from W.) of verandah, about 4 inches below pavement level, 43 feet and 327° from B.M. No. a/69, 27 feet and 126° from S.W. corner of station building, 42 feet and 100° from centre of base of home signal, and 13 feet from centre of door of station master's office. The letters B.M. are cut on base of pillar.	883·441	883·556

Main-Line 38. (Raipur to Bilaspur).

Designation of Bench-marks		Distance from Raipur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/69	BM.9/64 J	68·9	G.T.S. ○ B.M. On platform coping opposite booking office at Bilaspur Railway Station.	883·541	883·656
1/69	BM.10/64 J	71·3	On upper mark-stone of Bilaspur G.T. Survey Station, lat. 22° 5′ 5″·81, long. 82° 9′ 33″·64. A secondary station of Bilaspur Meridional Series. (For full description *see* Synoptical Volume).	857·847	857·959
2/69	BM.11/64 J	71·6	G.T.S. ○ B.M. at Sadar Bazar, Bilaspur. On W. end of 1st step from bottom of Bisweswarnath Zamindar's house.	857·241	857·352
2a/69	BM.12/64 J	72·4	B.M. ○ On stone slab let into upper step of and opposite N. face of obelisk, Bilaspur, in front of Tahsildar's kachahri, and in angle of crossing of roads from Jubbulpore and Raipur.	867·878	867·991
2b/69	BM.13/64 J	72·7	G.T.S. Standard Bench Mark 1909 at Bilaspur. Surrounded by iron railing and situated in compound of civil court, 122 feet from N.E. and 169 feet from N.W. corners of court building, and 82 feet from centre of main road.	887·226	887·341
3/69	BM.14/64 J	72·6	G.T.S. ○ B.M. On centre of 1st step from bottom, at E. entrance to Zilla Kachahri, Bilaspur.	886·983	887·098

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.1 / 73 H	0·0	G.T.S. □ B.M. at Judge's Court, Cuttack. Embedded near S.E. face of Gumti (Police sentry box), between Judge's Court and Municipal Dispensary, 8 inches below level of ground, 107 feet S. of S.W. corner and 108 feet from S.E. corner of Jail, 254 feet E. of E. door of Judge's Court, 158 feet from S.W. corner of Municipal Dispensary, and 6 feet S.E. of letters B.M. cut on face of Gumti.	74·128	74·145
2	BM.2 / 73 H	0·9	G.T.S. ○ B.M. at Collector's Kachahri, Cuttack. On top step of main entrance to kachahri, between passage to Joint Magistrate's Court and Nazir's Office.	83·667	83·686
3	BM.3 / 73 H	1·7	G.T.S. ○ B.M. at Purighat Well, Cuttack. On coping at S.E. corner of well on N. or Cuttack bank of Kathjori river, close to plate on which is engraved "Mokandi Barang, year 1298, A.D. 1891".	81·305	81·324
4	BM.4 / 73 H	2·6	B.○M. On top of mile-stone No. 0 at W. end of Kajipatnam village.	87·597	87·617
5	BM.5 / 73 H	3·5	G.T.S. □ B.M. at Mundamuhan P.W.D. Inspection Bungalow. Embedded in verandah of bungalow, level with floor, 4 feet N. of W. corner of building and 2 feet from wall, 5 feet from edge of verandah, and 5 feet W. of centre of N.W. door.	86·134	86·154
6	BM.6 / 73 H	4·3	B.○M. On top of furlong-stone No. 4¼ from Cuttack.	84·384	84·403
7	BM.7 / 73 H	4·7	G.T.S. ○ B.M. On N.E. end of S.E. parapet of culvert No. 4, 27 chains N.E. of mile-stone No. 5 from Cuttack.	82·054	82·073
8	BM.8 / 73 H	5·0	B.○M. On top of mile-stone No. 5 from Cuttack.	86·034	86·054
9	BM.9 / 73 H	6·0	B.○M. On top of mile-stone No. 6 from Cuttack.	82·926	82·945
10	BM.10 / 73 H	7·3	B.○M. On top of furlong-stone No. 7¼ from Cuttack.	98·473	98·496
11	BM.11 / 73 H	8·0	B.○M. On top of mile-stone No. 8 from Cuttack.	83·752	83·772
12	BM.12 / 73 H	9·3	B.○M. On top of furlong-stone No. 9¼ from Cuttack.	146·555	146·589
13	BM.13 / 73 H	9·8	B.○M. On top of furlong-stone No. 9¾ from Cuttack.	164·829	164·868
14	BM.14 / 73 H	11·1	B.○M. On top of mile-stone No. 11 from Cuttack.	150·747	150·782

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks			Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/14	BM.15/73 H	11·2	⋀ 1 at Chandaka P.W.D. Inspection Bungalow. On stone embedded near edge of verandah at foot of W. corner pillar. (P.W.D. bench-mark).	139·767	139·800
15		BM.16/73 H	11·2	G.T.S. □ B.M. at Chandaka P.W.D. Inspection Bungalow. Embedded in front or N.W. verandah of building, level with floor, between the two doors, 2 feet from wall, 6 feet from edge of verandah, and 19 and 17 feet respectively from W. and N. corners of bungalow.	139·802	139·835
16		BM.17/73 H	12·1	B.O.M. On top of mile-stone No. 12 from Cuttack.	122·071	122·100
17		BM.18/73 H	13·1	B.O.M. On top of mile-stone No. 13 from Cuttack.	156·270	156·307
18		BM.19/73 H	14·2	B.O.M. On top of mile-stone No. 14 from Cuttack.	143·792	143·826
19		BM.20/73 H	14·4	G.T.S. ○ B.M. On N.E. end of N.W. parapet of culvert No. 33, ¼ mile S.W. of mile-stone No. 14 from Cuttack.	143·648	143·682
20		BM.21/73 H	15·2	B.O.M. On top of mile-stone No. 15 from Cuttack.	179·129	179·172
21		BM.22/73 H	16·2	B.O.M. On top of mile-stone No. 16 from Cuttack.	176·508	176·550
22		BM.23/73 H	17·2	B.O.M. On top of mile-stone No. 17 from Cuttack.	182·782	182·826
23		BM.24/73 H	18·2	B.O.M. On top of mile-stone No. 18 from Cuttack.	191·486	191·532
24		BM.25/73 H	19·2	B.O.M. On top of mile-stone No. 19 from Cuttack.	175·647	175·689
25		BM.26/73 H	20·2	B.O.M. On top of mile-stone No. 20 from Cuttack.	151·356	151·393
26		BM.27/73 H	20·7	B.O.M. On top of furlong-stone No. 20½ from Cuttack.	141·919	141·953
	a/26	BM.28/73 H	21·1	G.T.S. □ B.M. at Chatabar P.W.D. Inspection Bungalow. Embedded in front or W. verandah of building, level with floor, between the doors of the two rooms, 2 feet from wall, 6 feet from front edge of verandah, 17 feet S. of N.W. corner and 19 feet N. of S.W. corner of building.	157·899	157·937
	b/26	BM.29/73 H	21·1	⋀ 2 at Chatabar P.W.D. Inspection Bungalow. On stone embedded in floor of W. or front verandah, on N. side of southernmost pillar. (P.W.D. bench-mark).	157·825	157·863

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
27	BM 30 / 73 H	21·3	B.O.M. On top of mile-stone No. 21 from Cuttack.	161·091	161·130
28	BM.31 / 73 H	22·3	B.O.M. On top of mile-stone No. 22 from Cuttack.	125·815	125·846
29	BM 32 / 73 H	23·3	B.O.M. On top of mile-stone No. 23 from Cuttack.	135·751	135·784
30	BM.33 / 73 H	24·3	B.O.M. On top of mile-stone No. 24 from Cuttack.	147·892	147·928
31	BM 34 / 73 H	24·6	B.O.M. On top of furlong-stone No. 24¼ from Cuttack.	158·010	158·049
32	BM 35 / 73 H	25·3	B.O.M. On top of mile-stone No. 25 from Cuttack.	108·228	108·254
33	BM 36 / 73 H	26·3	B.O.M. On top of mile-stone No. 26 from Cuttack.	98·124	98·148
34	BM 37 / 73 H	27·1	B.O.M. On top of furlong-stone No. 26¾ from Cuttack.	107·551	107·578
35	BM.38 / 73 H	27·3	B.O.M. On top of mile-stone No. 27 from Cuttack.	115·453	115·481
36	BM 39 / 73 H	27·3	G.T.S. ○ B.M. On W end of N. parapet of bridge No. 66, 2 chains W. of mile-stone No. 27 from Cuttack.	117·095	117·124
37	BM 40 / 73 H	28·3	G.T.S. □ B.M. at Khurda P.W.D. Inspection Bungalow. Embedded in front or W. verandah of building, level with floor, 15 feet from N.W., 12 feet from N.E. and 25 feet from S.E. corners of verandah, 6 feet to left of middle of door of centre room, and 2 feet from front wall of building.	138·126	138·160
1/37	BM 41 / 73 H	29·4	G.T.S. ○ B.M. On S. parapet of culvert, 1 mile from Khurda, on road to Barnai hill.	149·572	149·609
2/37	BM 42 / 73 H	30·9	G.T.S. ○ B.M. On parapet wall, 4 feet to E. of N.E. pillar of Thakrani Debi's temple, at foot and on N. side of Barnai hill.	421·461	421·565
3/37	BM.43 / 73 H	31·2	On upper mark-stone of Barnai G. T. Survey Hill Station, lat. 20° 9′ 31″·41, long. 85° 39′ 10″·67. A principal station of East Coast Series. (For full description *see* Synoptical Volume).	1002·600	1002·847

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
38	BM 44 / 73 H	28·4	B.O.M. On top of mile-stone No. 28 from Cuttack.	146·613	146·649
39	BM 45 / 73 H	29·4	B.O.M. On top of mile-stone No. 29 from Cuttack.	179·515	179·560
40	BM.46 / 73 H	30·4	B.O.M. On top of mile-stone No. 30 from Cuttack.	172·092	172·135
41	BM 47 / 73 H	31·4	B.O.M. On top of mile-stone No. 31 from Cuttack.	146·287	146·323
42	BM 48 / 73 H	32·4	B.O.M. On top of mile-stone No. 32 from Cuttack.	131·201	131·233
43	BM.49 / 73 H	33·4	B.O.M. On top of mile-stone No. 33 from Cuttack.	197·584	197·634
44	BM 50 / 73 H	34·4	B.O.M. On top of mile-stone No. 34 from Cuttack.	211·666	211·719
45	BM 51 / 73 H	35·4	B.O.M. On top of mile-stone No. 35 from Cuttack.	131·597	131·630
46	BM.52 / 73 H	36·4	B.O.M. On top of mile-stone No. 36 from Cuttack.	98·887	98·912
47	BM.53 / 73 H	37·4	B.O.M. On top of mile-stone No. 37 from Cuttack.	77·264	77·283
48	BM.54 / 73 H	38·4	B.O.M. On top of mile-stone No. 38 from Cuttack.	83·142	83·163
49	BM.55 / 73 H	39·4	B.O.M. On top of mile-stone No. 39 from Cuttack.	117·866	117·896
50	BM.56 / 73 H	40·4	B.O.M. On top of mile-stone No. 40 from Cuttack.	72·111	72·129
a / 50	BM.57 / 73 H	40·9	G.T.S. □ B.M. at Jankia P.W.D. Inspection Bungalow. Embedded in front or N.W. verandah, level with floor, between N. corner of building and door of N. room, 1 foot from wall, 7 feet from centre of door of N. room, 4 feet from N. corner of building, and 14 feet from inner corner of N. pillar.	46·745	46·757
b / 50	BM 58 / 73 H	40·9	⋀ R M.S.D. 91·34 at Jankia P.W.D. Inspection Bungalow. On stone embedded in floor of front or N.W. verandah, on S.W. side of N. corner pillar, and 14 feet N. of B.M. No. a/50. (P.W.D. bench-mark).	46·710	46·722
51	BM.59 / 73 H	41·4	B.O.M. On top of mile-stone No. 41 from Cuttack.	46·320	46·332

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
52	BM 60 / 73 H	42·4	B.O.M. On top of mile-stone No. 42 from Cuttack.	77·588	77·608
53	BM.61 / 73 H	43·4	B.O.M. On top of mile-stone No. 43 from Cuttack.	99·454	99·479
54	BM 62 / 73 H	44·4	B.O.M. On top of mile-stone No. 44 from Cuttack.	96·915	96·940
55	BM 1 / 74 E	45·4	B.O.M. On top of mile-stone No. 45 from Cuttack.	133·614	133·648
56	BM.2 / 74 E	46·4	B.O.M. On top of mile-stone No 46 from Cuttack.	153·825	153·865
57	BM 3 / 74 E	47·4	B.O.M. On top of mile-stone No 47 from Cuttack.	131·931	131·965
58	BM 4 / 74 E	48·4	B.O.M. On top of mile-stone No. 48 from Cuttack.	109·486	109·514
59	BM 5 / 74 E	49·4	B.O.M. On top of mile-stone No. 49 from Cuttack.	77·872	77·892
60	BM 6 / 71 E	50·4	B.O.M. On top of mile-stone No. 50 from Cuttack.	66·365	66·382
61	BM 7 / 74 E	51·4	B.O.M. On top of mile-stone No. 51 from Cuttack.	62·712	62·728
62	BM 8 / 74 E	52·0	G.T.S. □ B.M. at Tangi P.W.D. Inspection Bungalow. Embedded in front or S.E. verandah, level with floor, between the doors of the two rooms, 1 foot from wall, 19 feet from E. corner, and 18 feet from S. corner of building.	89·505	89·528
a 62	BM.9 / 74 E	52·0	⅄ 5 at Tangi P.W.D. Inspection Bungalow On stone embedded in front verandah, on N.W side of southernmost pillar, and 17 feet S.W. of B.M. No. 62. (P.W.D. bench-mark).	89·339	89·362
63	BM 10 / 74 E	52·4	B.O.M. On top of mile-stone No. 52 from Cuttack.	62·886	62·902
64	BM.11 / 74 E	53·4	B.O.M. On top of mile-stone No. 53 from Cuttack.	45·625	45·637
65	BM.12 / 74 E	54·4	B.O.M. On top of mile-stone No. 54 from Cuttack.	51·742	51·756
66	BM 13 / 74 E	55·4	B.O.M. On top of mile-stone No. 55 from Cuttack.	59·838	59·854

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
67	BM.14 / 74 E	56·4	B.O.M. On top of mile-stone No. 56 from Cuttack.	75·974	75·994
68	BM.15 / 74 E	57·4	B.O.M. On top of mile-stone No. 57 from Cuttack.	85·757	85·780
69	BM.16 / 74 E	58·4	B.O.M. On top of mile-stone No. 58 from Cuttack.	59·007	59·023
70	BM.17 / 74 E	59·4	B.O.M. On top of mile-stone No. 59 from Cuttack.	81·775	81·797
71	BM 18 / 74 E	60·4	B.O.M. On top of mile-stone No. 60 from Cuttack.	113·826	113·856
72	BM 19 / 74 E	61·4	B.O.M. On top of mile-stone No. 61 from Cuttack.	63·271	63·288
a / 72	BM 20 / 74 E	62·0	G.T.S. □ B.M. at Sonakhali P.W.D. Inspection Bungalow. Embedded in front or W. verandah, level with floor, midway between the two doors, 2 feet from wall, 16 feet from inner corner of N. pillar of verandah, and 18 feet from N.W. and S.W. corners of building.	64·304	64·321
73	BM.21 / 74 E	62·5	B.O.M. On top of mile-stone No. 62 from Cuttack.	45·175	45·187
74	BM.22 / 74 E	63·5	B.O.M. On top of mile-stone No. 63 from Cuttack.	25·269	25·276
75	BM.23 / 74 E	64·5	B.O.M. On top of mile-stone No. 64 from Cuttack.	30·988	30·996
76	BM.24 / 74 E	65·2	B.O.M. On top of furlong-stone No. 64¾ from Cuttack.	39·527	39·538
77	BM.25 / 74 E	65·4	B.O.M. On top of mile-stone No. 65 from Cuttack.	45·213	45·225
78	BM.26 / 74 E	66·4	B.O.M. On top of mile-stone No. 66 from Cuttack.	24·985	24·992
79	BM.27 / 74 E	67·4	B.O.M. On top of mile-stone No. 67 from Cuttack.	10·569	10·572
80	BM.28 / 74 E	68·4	B.O.M. On top of mile-stone No. 68 from Cuttack.	14·838	14·842
81	BM 29 / 74 E	69·4	B.O.M. On top of mile-stone No. 69 from Cuttack.	13·161	13·165
82	BM 30 / 74 E	70·4	B.O.M. On top of mile-stone No. 70 from Cuttack.	9·264	9·266

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
83	BM 31 / 74 E	71·4	B.OM. On top of mile-stone No. 71 from Cuttack.	14·565	14·569
84	BM.32 / 74 E	72·4	B.OM. On top of mile-stone No. 72 from Cuttack.	25·289	25·296
85	BM.33 / 74 E	73·5	G.T.S. □ B.M. at Barkal P.W.D. Inspection Bungalow. Embedded in front or W. verandah, level with floor, to right of door of N. room, 2 feet from wall, 18 feet from N.W. and 23 feet from S.W. corners of verandah.	18·117	18·122
a 85	BM.34 / 74 E	73·6	⋀ 7 at Barkal P.W.D. Inspection Bungalow. On stone embedded in floor of front or W. verandah, near S.W. corner pillar, and 21 feet from B.M. No. 85. (P.W.D. bench-mark).	17·736	17·741
1 85	BM 35 / 74 E	76·9	On top of circular protecting pillar of Chandikho G.T. Survey Hill Station, lat 19° 42′ 43″·59, long. 85° 9′ 9″·45. A principal station of East Coast Series. (For full description *see* Synoptical Volume).	1520·917	1521·335
86	BM 36 / 74 E	75·0	B.OM. On top of furlong-stone No. 73½ from Cuttack.	74·268	74·288
87	BM 37 / 74 E	75·5	B.OM. On top of mile-stone No. 74 from Cuttack.	88·935	88·960
88	BM 38 / 74 E	75·8	B.OM. On top of mile-stone No. 42 from Berhampur.	92·479	92·504
89	BM.39 / 74 E	76·9	B.OM. On top of mile-stone No. 41 from Berhampur.	24·170	24·177
90	BM.40 / 74 E	77·9	B.OM. On top of mile-stone No. 40 from Berhampur.	11·618	11·621
91	BM.41 / 74 E	78·9	B.OM. On top of mile-stone No. 39 from Berhampur.	36·350	36·360
92	BM.42 / 74 E	79·9	B.OM. On top of mile-stone No. 38 from Berhampur.	76·158	76·179
93	BM.43 / 74 E	80·9	B.OM. On top of mile-stone No. 37 from Berhampur.	78·662	78·684
94	BM.44 / 74 E	82·0	G.T.S. □ B.M. at Kallikota Railway Rest House. Embedded in front or S.E. verandah, level with floor, to left of door of centre room, 2 feet from wall, 13 and 25 feet respectively from S. and E. corners of building, and 13 feet from inner corner of stone base of S. wooden post of verandah.	28·347	28·355

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
95	BM.45/74 E	83·5	B.O.M. On top of mile-stone No. 35 from Berhampur.	51·411	51·425
96	BM.46/74 E	84·4	B.O.M. On top of mile-stone No. 34 from Berhampur.	179·474	179·525
97	BM.47/74 E	85·1	B.O.M. On top of mile-stone No. 33 from Berhampur.	115·490	115·523
98	BM.48/74 E	87·9	B.O.M. On top of mile-stone No. 30 from Berhampur.	64·311	64·329
99	BM.49/74 E	88·6	G.T.S. □ B.M. at Rambha Railway Rest House. Embedded in front or S.E. verandah, level with floor, to left of door of centre room, 2 feet from wall, 14 and 50 feet respectively from S. and E. corners of building, and 16 feet from S. wooden pillar of verandah.	32·606	32·615
100	BM.50/74 E	88·8	B.O.M. On top of mile-stone No. 29 from Berhampur.	15·119	15·123
a/100	BM.51/74 E	89·7	G.T.S. ○ B.M. at Rambha village. On coping at N.E. corner of a *tulsi* platform in front of village school.	25·611	25·618
101	BM.52/74 E	90·9	B.O.M. On top of mile-stone No. 27 from Berhampur.	53·919	53·934
a/101	BM.53/74 E	91·5	G.T.S. ○ B.M. On stone coping of E. parapet of culvert, 30 chains N. of mile-stone No. 26 from Berhampur.	78·250	78·272
102	BM.54/74 E	91·9	B.O.M. On top of mile-stone No. 26 from Berhampur.	83·198	83·222
103	BM.55/74 E	92·9	B.O.M. On top of mile-stone No. 25 from Berhampur.	60·409	60·426
104	BM.56/74 E	93·9	B.O.M. On top of mile-stone No. 24 from Berhampur.	62·147	62·165
105	BM.57/74 E	94·9	B.O.M. On top of mile-stone No. 23 from Berhampur.	44·485	44·498
106	BM.58/74 E	95·9	B.O.M. On top of mile-stone No. 22 from Berhampur.	22·195	22·201
107	BM.59/74 E	96·3	B.O.M. On top of a stone embedded upright in ground with number 46 engraved on its W. face, on E. margin of main road to Ganjam, and outside N.W. corner of rest shed enclosure at Humma.	21·285	21·291
a/107	BM.60/74 E	96·3	G.T.S. □ B.M. at Humma Local Fund Rest Shed. Embedded in N. verandah, level with floor, 13 and 5 feet respectively from N.E. and N.W. corners of shed, and 1 foot from wall. The shed is on E. side of main road to Ganjam, and S. of officers' quarters of Salt Customs Department.	19·170	19·176

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
108	BM 61 / 74 E	98·9	B.○M. On top of mile-stone No. 19 from Berhampur.	13·445	13·449
109	BM 62 / 74 E	99·0	○ B.M. On W. guard-stone of S. parapet of culvert at junction of roads from town of Ganjam and Port flag-staff, and 13 chains S. of mile-stone No. 19 from Berhampur.	10·199	10·202
110	BM.63 / 74 E	100·1	G.T.S. □ B.M. at Ganjam. Embedded 6 inches below ground level, outside walled enclosure of old zilla court-house, 15 feet E. of centre of S. gateway, and 4 feet from wall of enclosure on which letters B.M. are cut; 400 feet from centre of pakka well close to Mahadeo's temple, and at foot of glacis on N. side of Ganjam Fort, about ¼ mile from it	13·269	13·273
a / 110	BM 64 / 74 E	101·6	G.T.S. ○ B.M. On stone coping of semi-circular pillar at S.E. end of N.E. abutment of bridge over Rushikulya river at Ganjam.	28·852	28·860
b / 110	BM 65 / 74 E	102·3	G.T.S. ○ B.M. On stone coping of semi-circular pillar at S.E. end of S.W. abutment of bridge over Rushikulya river at Ganjam.	28·831	28·839
111	BM 66 / 74 E	102·5	○ B.M. On top of mile-stone No. 16 from Berhampur.	13·511	13·515
112	BM 67 / 74 E	103·5	B.○M. On top of mile-stone No. 15 from Berhampur.	18·903	18·909
113	BM 1 / 74 A	104·5	B.○M. On top of mile-stone No. 14 from Berhampur.	50·121	50·136
a / 113	BM.2 / 74 A	105·1	G.T.S. ○ B.M. On coping of Kumaribegpalli Village Well platform, on N. side, and close to parapet wall, midway between mile-stones Nos. 13 and 14 from Berhampur.	62·872	62·890
114	BM.3 / 74 A	105·5	B.○M. On top of mile-stone No 13 from Berhampur.	88·951	88·977
115	BM 4 / 74 A	105·9	G.T.S. ○ B.M. On W. parapet of culvert in Chatrapur Bazar, at junction of road from Police head-quarters with main road to Berhampur.	93·583	93·611
a / 115	BM.5 / 74 A	106·1	G.T.S. □ B.M. at Chatrapur Travellers' Bungalow. Embedded in front or S.E. verandah, 3 feet S.W. of E. corner of building, level with floor, 13 feet to right of centre of door, 27 feet from S. corner of building, and 2 feet from wall.	114·897	114·931
b / 115	BM.6 / 74 A	106·6	○ G.T.S. B.M. On stone coping of Chatrapur Railway Station well, 3 chains N.E of N.W. corner of station building.	101·779	101·809
c / 115	BM.7 / 74 A	106·6	○ G.T.S. B.M. On E. end of platform coping at Chatrapur Railway Station and identical with the railway bench-mark marked in tar thus— ⅄ 99 52.	99·872	99·901

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
d/115	BM.8/74 A	106·7	○ G.T.S. B.M.	On W. end of platform coping of Chatrapur Railway Station and identical with the railway bench-mark marked in tar thus— ⅄ 99·54.	99·915	99·944
116	BM.9/74 A	106·5	G.T.S. ○ B.M.	On top of mile-stone No. 12 from Berhampur.	106·657	106·689
117	BM.10/74 A	107·5	B.○M.	On top of mile-stone No. 11 from Berhampur.	81·709	81·733
118	BM.11/74 A	108·5	G.T.S. ○ B.M.	On top of mile-stone No. 10 from Berhampur.	167·344	167·393
119	BM.12/74 A	109·5	G.T.S. ○ B.M.	On top of mile-stone No. 9 from Berhampur.	132·780	132·819
120	BM.13/74 A	110·5	G.T.S. ○ B.M.	On top of mile-stone No. 8 from Berhampur.	64·236	64·255
121	BM 14/74 A	111·5	G.T.S. ○ B.M.	On top of mile-stone No. 7 from Berhampur.	40·336	40·348
122	BM.15/74 A	112·5	G.T.S. ○ B.M.	On top of mile-stone No. 6 from Berhampur.	59·422	59·440
123	BM.16/74 A	113·0	G.T.S. ○ B.M.	On W. end of 2nd step from ground, at entrance to Police station at Jagannathpur, on side of road and midway between mile-stones Nos. 5 and 6 from Berhampur.	95·993	96·022
124	BM.17/74 A	113·6	○ G.T.S. B.M.	On top of mile-stone No. 5 from Berhampur.	94·512	94·540
125	BM 18/74 A	114·3	G.T.S. ○ B.M.	On S.W. guard-stone of S.E. parapet of culvert, 4 chains N.E. of level crossing, and 25 chains E. of mile-stone No. 4 from Berhampur.	67·954	67·974
126	BM.19/74 A	115·7	G.T.S. ○ B.M.	On N. stone cap of E. abutment of bridge over Ampuva nala.	34·910	34·920
127	BM.20/74 A	116·9	G.T.S. ○ B.M.	On E. end of N. parapet of culvert, ½ mile N. of Ankolu village.	60·956	60·974
128	BM.21/74 A	118·1	G.T.S. B.○M.	On N. end of stone step at inner gate of main entrance to Berhampur District Jail.	78·590	78·614

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
129	BM.22 / 74 A	118·2	G.T.S. ○ B.M. On S. parapet of culvert, 13 chains N.W. of Berhampur District Jail.	72·958	72·980
130	BM.23 / 74 A	119·1	G.T.S. ○ B.M. On N.E. end of platform coping at Berhampur Railway Station.	64·540	64·559
131	BM.24 / 74 A	119·2	G.T.S. ○ B.M. On S.W. end of platform coping at Berhampur Railway Station.	64·648	64·667
132	BM.25 / 74 A	119·2	G.T.S. □ B.M. at Berhampur Railway Station. Embedded at foot of ramp, at S.W. end of station platform, 4 inches below level of ground, 37 feet from B.M. No. 131, 21 feet from edge of coping at foot of ramp, and 132 feet from centre of N. parapet of culvert at S.W. end of station.	60·562	60·580
133	BM.26 / 74 A	120·1	G.T.S. ○ B.M. On coping at S.E. end of N.E. abutment of bridge, near telegraph post No. 387/14.	49·064	49·079
134	BM.27 / 74 A	120·8	G.T.S. ○ B.M. On N. end of E. parapet of bridge, between telegraph posts Nos. 386/21 and 386/22.	54·899	54·915
135	BM.28 / 74 A	123·1	G.T.S. ○ B.M. On E. parapet of culvert, near telegraph post No. 384/14.	87·135	87·161
136	BM.29 / 74 A	124·3	G.T.S. ○ B.M. On N.E. end of S.E. parapet of culvert, near telegraph post No. 383/9.	64·054	64·073
137	BM 30 / 74 A	125·4	G.T.S. ○ B.M. On coping at E. end of N. abutment of bridge, near telegraph post No. 382/8.	79·456	79·480
138	BM 31 / 74 A	126·2	G.T.S. ○ B.M. On coping at E. end of S abutment of bridge, near telegraph post No. 381/11.	82·004	82·029
139	BM.32 / 74 A	127·7	G.T.S. ○ B.M. On coping at E. end of S. abutment of bridge, near telegraph post No. 379/24.	85·346	85·372
140	BM.33 / 74 A	127·9	G.T.S. ○ B.M. On N.W. wing wall of culvert, near telegraph post No. 379/19.	74·200	74·222

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks			Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/140	BM.34/74 A	128·0	G.T.S. □ B.M. at Balyaguda Ichchhesvar (Mahadeo) Temple. Embedded on S. side of temple, 6 inches below ground level, 4 feet from centre of S. face of temple, on which letters B.M. are cut, and 154 yards W. of railway culvert at telegraph post No. 379/19.	68·387	68·408
141		BM.35/74 A	128·7	G.T.S. ○ B.M. On N.E. end of S.E. parapet of bridge, near telegraph post No. 378/24.	48·021	48·036
142		BM.36/74 A	130·1	G.T.S. ○ B.M. On coping at S.E. end of S.W. abutment of bridge, between telegraph posts Nos. 377/16 and 377/17.	32·212	32·222
143		BM 37/74 A	130·4	G.T.S. ○ B.M. On N.E. end of S.E. parapet of culvert, near telegraph post No. 377/8.	20·801	20·807
144		BM 38/74 A	130·6	G.T.S. ○ B.M. On S.E. end of N.E. abutment of bridge, near telegraph post No. 377/4.	24·875	24·883
145		BM.39/74 A	131·4	G.T.S. ○ B.M. On coping at S.W. end of S.E. parapet of culvert, near telegraph post No. 376/7.	39·473	39·485
146		BM.40/74 A	133·4	G.T.S. ○ B.M. On N. end of E. parapet of bridge, near telegraph post No. 374/8, and opposite town of Ichchhapuram.	32·395	32·405
147		BM.41/74 A	134·4	G.T.S. □ B.M. at Ichchhapuram Railway Station. Embedded on S. side of station, a few inches below ground level, 56 feet from edge of coping at S. end of platform, and 29 and 57 yards respectively from telegraph posts Nos. 373/9 and 373/10.	59·790	59·809
148		BM.42/74 A	135·2	G.T.S. ○ B.M. On coping at N.E. end of S.E. abutment of bridge, near telegraph post No. 372/12.	39·807	39·819
149		BM.43/74 A	136·2	G.T.S. ○ B.M. On coping at E. end of S. abutment of bridge, near telegraph post No. 371/14.	31·852	31·862
150		BM.44/74 A	137·1	G.T.S. ○ B.M. On coping at E. end of S. abutment of bridge, near telegraph post No. 370/15.	31·900	31·910

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
151	BM.45/74 A	138·1	G.T.S. ○ B.M. On coping at S E. end of S.W. abutment of bridge, near telegraph post No. 369/17.	32·358	32·368
152	BM.46/74 A	138·5	○ G T.S. B.M. On rock *in situ* on W. margin of railway line in cutting near village of Gorapar, opposite telegraph post No. 369/5.	44·676	44·690
153	BM.47/74 A	140·3	G T S. ○ B.M. On centre of S.E. parapet of bridge, near telegraph post No. 367/11.	80·268	80·293
154	BM 48/74 A	141·2	G.T S. ○ B M. On N.E. end of S.E. parapet of bridge, near telegraph post No. 366/14.	95·504	95·534
155	BM 49/74 A	142·2	G.T S. ○ B.M. On N.E. end of S.E. parapet of culvert, near telegraph post No. 365/14.	103·231	103·263
156	BM.1/74 B	143·6	G T S. ○ B.M. On S.E. parapet of culvert, near telegraph post No. 364/4.	116·752	116·789
157	BM 2/74 B	144·2	G T.S. ○ B M. On centre of S.E. parapet of bridge, near telegraph post No. 363/12.	123·981	124·020
158	BM 3/74 B	144·8	G T S. ○ B M. On N E. end of S.E. parapet of culvert, near telegraph post No. 362/23.	134·004	134·046
159	BM.4/74 B	145·4	G.T.S. ○ B.M. On platform coping at N.E. end, on top of ramp at Kanchili Railway Station.	143·984	144·030
160	BM 5/74 B	145·6	G.T.S. □ B.M. at Kanchili Railway Station. Embedded on S. side of station platform, a few inches below surface of ground, 83 yards S. of home semaphore, 262 yards from B M. No. 159, 278 and 152 feet respectively from telegraph posts Nos. 362/4 and 362/5, and 58 feet from centre of top of station well.	144·420	144·466
161	BM.6/74 B	146·6	G.T S. ○ B.M. On E. parapet of culvert, near telegraph post No. 361/3.	113·227	113·263
162	BM 7/74 B	148·3	G.T.S. ○ B.M. On E. end of N. abutment of bridge, near telegraph post No. 359/13.	66·402	66·423

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
163	BM.8 / 74 B	149·5	G.T.S. ○ B.M. On S. abutment to W. of coping at E. end of bridge, near telegraph post No. 358/7.	34·322	34·333
164	BM.9 / 74 B	150·7	G.T.S. ○ B.M. On S. end of W. wing wall of S. abutment of bridge, near telegraph post No. 357/3.	28·149	28·158
165	BM.10 / 74 B	151·5	○ G.T.S. B.M. On rock *in situ*, the centre one of a group of three, on E. side of railway line, 45 feet S.E. of telegraph post No. 356/7, 4 chains S.W. of Brahmani Kolam village, and about 10 chains S. of Baruva Railway Station.	37·033	37·045
a/165	BM.11 / 74 B	151·6	G.T.S. □ B.M. at Baruva Railway Station. Embedded on S. side of station, a few inches below ground level, 56 feet S.W. of edge of coping at S. end of platform, 30 feet W. of centre of main line, and 299 feet S. of home semaphore.	41·618	41·631
166	BM.12 / 74 B	152·5	G.T.S. ○ B.M. On coping at S.E. end of N.E. abutment of bridge, near telegraph post No. 355/7.	39·232	39·245
167	BM.13 / 74 B	153·3	G.T.S. ○ B.M. On coping at S.E. end of N.E. abutment of bridge over Mahendratanaya river, near telegraph post No. 354/12.	43·517	43·531
168	BM.14 / 74 B	154·3	G.T.S. ○ B.M. On S.E. end of S.W. abutment of bridge, near telegraph post No. 353/12.	45·362	45·377
169	BM.15 / 74 B	155·4	G.T.S. ○ B.M. On coping at S.E. end of S.W. wall of rail opening, near telegraph post No. 352/9.	62·387	62·407
170	BM.16 / 74 B	156·5	G.T.S. ○ B.M. On S.W. end of S.E. parapet of culvert, near telegraph post No. 351/7.	96·048	96·079
171	BM.17 / 74 B	157·2	G.T.S. □ B.M. at Mandasa Road Railway Station. Embedded on S.W. side of station, a few inches below level of platform, 149 yards S.W. of home semaphore, 92 and 84 yards respectively from telegraph posts Nos. 350/15 and 350/16, and 146 yards from W. corner of permanent way inspector's bungalow.	101·456	101·489

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1/171	BM.18/74 B	162·1	On upper mark-stone of Mal G. T. Survey Hill Station, lat. 18° 47′ 16″·97, long. 84° 30′ 44″·31. A principal station of East Coast Series. (For full description *see* Synoptical Volume).	483·118	483·274
172	BM.19/74 B	157·5	⊔ ⋀ G.T.S. B.M. On S.E. parapet of culvert, near telegraph post No. 350/9 (Railway bench-mark).	100·124	100·156
173	BM.20/74 B	158·5	G.T.S. ○ B.M. On S.E. parapet of culvert, near telegraph post No. 349/6.	135·458	135·502
174	BM 21/74 B	159·2	G.T.S. ○ B.M. On S.W. end of S.E. parapet of bridge, near telegraph post No. 348/15.	152·524	152·574
175	BM 22/74 B	160·3	G.T.S. ○ B.M. On N.E. end of S.E. parapet of bridge, near telegraph post No. 347/13.	169·730	169·785
176	BM 23/74 B	161·3	G.T.S. ○ B.M. On E. parapet of culvert, near telegraph post No. 346/12.	187·977	188·038
177	BM 24/74 B	162·2	G.T.S. ○ B.M. On N. end of E. parapet of culvert, near telegraph post No. 345/15.	172·369	172·425
178	BM 25/74 B	163·5	G.T.S. ○ B.M. On S.E. parapet of bridge, near telegraph post No. 344/9.	128·687	128·729
179	BM 26/74 B	164·8	G.T.S. ○ B.M. On coping at S. end of W. abutment of bridge, near telegraph post No. 342/22.	88·844	88·873
180	BM 27/74 B	165·2	G.T.S. □ B.M. at Palasa Railway Station. Embedded on E. side of station master's provisional quarters, a few inches below ground level, 18 and 19 feet respectively from N.E. and S.E. corners of building, 14 feet from centre of E. wall, 77 yards S.W. of home semaphore, and 106 feet from telegraph post No. 342/14.	80·037	80·063
181	BM.28/74 B	166·5	□ G.T.S. ○ ⋀ B.M. On N.E. end of N.W. parapet of bridge, at telegraph post No. 341/7 (Railway bench-mark).	47·473	47·489

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
182	BM.29 / 74 B	167·1	G.T.S. ○ B.M. On centre of S.E. parapet of bridge, near telegraph post No. 340/17.	42·556	42·570
183	BM.30 / 74 B	168·4	G.T.S. ○ B.M. On coping at N.W. end of N.E. abutment of bridge, near telegraph post No. 339/9.	32·808	32·819
184	BM 31 / 74 B	168·9	G.T.S. ○ B.M. On coping of E. cut-water of S. pier of bridge, opposite telegraph post No. 338/22.	28·867	28·877
185	BM.32 / 74 B	169·2	G.T.S. ○ B.M. On centre of E. parapet of culvert, near telegraph post No. 338/14.	41·815	41·829
186	BM 33 / 74 B	170·4	G.T.S. ○ B.M. On E. parapet of culvert, near telegraph post No. 337/9.	61·429	61·449
187	BM 34 / 74 B	171·4	G.T.S. ○ B.M. On S. end of E. parapet of bridge, near telegraph post No. 336/8.	70·285	70·308
188	BM.35 / 74 B	172·2	G.T.S. ○ B.M. On centre of N.W. parapet of culvert, near telegraph post No. 335/13.	90·277	90·307
189	BM.36 / 74 B	172·9	G.T.S. □ B.M. at Pundi Railway Station. Embedded on S.W. side of station, 4 inches below ground level, 44 feet from edge of coping at top of ramp at S.W. end of platform, 320 feet S.W. of home semaphore, 323 feet N. of telegraph post No. 334/20, and 207 feet N.W. of telegraph post No. 334/21.	108·268	108·304
190	BM.37 / 74 B	174·4	G.T.S. ○ B.M. On coping at S.E. end of N.E. abutment of bridge, near telegraph post No. 333/8.	63·463	63·484
191	BM.38 / 74 B	174·9	G.T.S. ○ B.M. On S.E. parapet of culvert, near telegraph post No. 332/22.	58·892	58·912
192	BM 39 / 74 B	176·1	G.T.S. ○ B.M. On S.E. parapet of culvert, near telegraph post No. 331/17.	40·856	40·870

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
193	BM 40 / 74 B	176·9	G.T.S. ○ B.M. On N. corner-stone of cistern on S.E. side of railway line, at telegraph post No. $\frac{330}{21}$, and near Ragatpuram village.	33·700	33·712
194	BM.41 / 74 B	178·1	G.T.S. ○ B.M. On N.E. end of N.W. parapet of culvert, near telegraph post No. $\frac{329}{16}$.	26·749	26·758
195	BM 42 / 74 B	179·3	G.T.S. ○ B.M. On S.E. end of S.W. abutment of bridge, near telegraph post No. $\frac{328}{10}$.	19·658	19·665
196	BM.43 / 74 B	180·3	G.T.S. ○ B.M. On S.E. end of S.W. abutment of bridge, near telegraph post No. $\frac{327}{12}$.	20·127	20·134
197	BM.44 / 74 B	181·2	G.T.S. □ B.M. at Naupada Railway Station. Embedded on S.W. side of station, 4 inches below ground level, 193 feet S. of edge of coping at top of ramp at S.W. end of platform, 545 feet S.W. of home semaphore, 230 feet N. of telegraph post No $\frac{326}{8}$, and 207 feet N.W. of telegraph post No. $\frac{326}{9}$.	26·376	26·385
198	BM.45 / 74 B	182·4	G.T.S. ○ B.M. On coping at N.W. end of N.E. abutment of bridge, near telegraph post No. $\frac{325}{9}$.	11·799	11·803
199	BM 46 / 74 B	182·9	G.T.S. ○ B.M. On coping at S.E. end of N.E. abutment of bridge, near telegraph post No. $\frac{324}{20}$.	11·991	11·995
200	BM 47 / 74 B	184·1	G.T.S. ○ B.M. On S.E. parapet of bridge, near telegraph post No. $\frac{323}{16}$.	13·156	13·160
201	BM 48 / 74 B	185·4	G.T.S. ○ B.M. On S.E. parapet of culvert, near telegraph post No. $\frac{322}{9}$.	17·145	17·151
202	BM.49 / 74 B	186·2	G.T.S. ○ B.M. On N.W. end of N.E. abutment of bridge, near telegraph post No. $\frac{321}{14}$.	18·614	18·621
203	BM 50 / 74 B	187·6	G.T.S. ○ B.M. On N. end of W. parapet of culvert, near telegraph post No. $\frac{320}{4}$.	40·121	40·135

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
204	BM.51 / 74 B	189·0	G.T.S. ○ B.M. On coping at N.W. end of S.W. abutment of bridge, near telegraph post No. 318/17.	25·880	25·889
205	BM.52 / 74 B	189·7	G.T.S. ○ B.M. On N.E. end of N.W. parapet of culvert at telegraph post No. 317/24, and 8 chains W. of Kotta Bommali Railway Station.	29·275	29·285
206	BM 53 / 74 B	190·8	G.T.S. ○ B.M. On E. end of N. parapet of bridge, near telegraph post No. 316/24.	44·785	44·801
207	BM 54 / 74 B	191·2	G.T.S. ○ B.M. On W. end of N. parapet of culvert, near telegraph post No. 316/13.	60·748	60·769
208	BM.55 / 74 B	193·0	G.T.S. ○ B.M. On coping at N. end of E. abutment of bridge, near telegraph post No. 314/17.	67·915	67·938
209	BM.56 / 74 B	193·7	G.T.S. ○ B.M. On N. end of W. abutment of bridge, near telegraph post No. 314/1.	78·948	78·975
210	BM.57 / 74 B	194·7	G.T.S. ○ B.M. On coping at N. end of E. abutment of bridge, near telegraph post No. 313/2.	82·298	82·326
211	BM.58 / 74 B	195·4	G.T.S. ○ B.M. On coping at S. end of W. abutment of bridge, near telegraph post No. 312/8.	91·213	91·244
212	BM.59 / 74 B	197·3	G.T.S. ○ B.M. On coping at N. end of E. abutment of bridge, near telegraph post No. 310/9.	132·251	132·297
213	BM.60 / 74 B	197·8	G.T.S. ○ B.M. On coping at S.E. corner of base of E. distant signal at Parlakimedi Road Railway Station.	145·342	145·392
214	BM.61 / 74 B	198·2	G.T.S. ○ B.M. On coping of base of home semaphore, 3 feet S.E. of signal staff at Parlakimedi Road Railway Station.	153·692	153·745
a/214	BM.62 / 74 B	198·3	G.T.S. □ B.M. at Parlakimedi Road Railway Station. Embedded 8 inches below ground level on E. side of provisional station building, 16 feet from S.E. corner pillar of verandah, 38 feet from N.E. and 24 feet from S.E. corners of station building, 195 yards E.N.E. of home semaphore, 144 yards N.N.E. of telegraph post No. 309/12, 117 yards N.N.W. of telegraph post No. 309/13, and 50 yards N. of centre of main line of railway.	155·269	155·322

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
215	BM.63 / 74 B	198·7	G T S. ○ B.M.	On coping at N.E. corner of base of W. distant signal at Parlakimedi Road Railway Station.	141·376	141·425
216	BM 64 / 74 B	198·8	G.T.S. ○ B M.	On N. parapet of bridge, near telegraph post No. 308/23.	137·011	137·058
217	BM 65 / 74 B	199·8	G.T S. ○ B.M.	On centre of N. parapet of culvert, near telegraph post No. 307/21.	101·940	101·975
218	BM 66 / 74 B	201·1	G.T S. ○ B.M.	On N. parapet of bridge, near telegraph post No. 306/13.	79·352	79·379
219	BM 67 / 74 B	202·4	G.T S. ○ B.M.	On coping at N. end of W. abutment of bridge, near telegraph post No. 305/7.	60·746	60·767
220	BM 68 / 74 B	203·9	G T.S. ○ B M.	On coping at N.W. end of N.E. abutment of bridge, near telegraph post No. 303/18.	56·576	56·596
221	BM 107 / 65 N	204·7	G.T.S. ○ B.M.	On centre of N.W. parapet of culvert, near telegraph post No. 302/24.	53·637	53·656
222	BM 108 / 65 N	205·7	G.T S. ○ B.M.	On stone coping at N. end of E. abutment of bridge, near telegraph post No. 302/1.	54·392	54·411
223	BM 109 / 65 N	206·6	G T S. ○ B.M.	On stone coping at N. end of W. abutment of bridge, near telegraph post No. 301/3.	58·120	58·140
224	BM 110 / 65 N	207·4	G.T S. ○ B.M.	On centre of coping at N. end of E. abutment of bridge over Vamsadhara river, near telegraph post No. 300/10.	64·998	65·021
225	BM 111 / 65 N	207·7	G T.S. ○ B.M.	On coping at N. end of W. abutment of bridge over Vamsadhara river, near telegraph post No. 300/1.	65·061	65·084
226	BM 112 / 65 N	208·7	G.T S. ○ B.M.	On centre of N.W. parapet of culvert, near telegraph post No. 298/25.	75·463	75·489
227	BM 113 / 65 N	210·3	G.T.S. ○ B.M.	On coping at N.E. end of platform at Chicacole Road Railway Station.	101·112	101·147

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks			Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
	a/227	BM.114/65 N	miles 210·3	G.T.S. □ B.M. at Chicacole Road Railway Station. Embedded 7 inches below ground level, on N.E. side of provisional station building, 22 feet from E. corner pillar of verandah, 42 and 31 feet respectively from N. and E. corners of building, 110 feet from S. and 111 feet from W. corners of porters' quarters, and 136 feet from centre of main line of railway.	feet 102·427	feet 102·462
228		BM.115/65 N	210·4	G.T.S. ○ B.M. On coping at S.W. end of platform at Chicacole Road Railway Station.	101·125	101·160
229		BM.116/65 N	210·6	G.T.S. ○ B.M. On coping at S.E. end of N.E. abutment of bridge, near telegraph post No. 297/2.	99·081	99·116
230		BM.117/65 N	211·0	G.T.S. ○ B.M. On coping at N.W. end of S.W. abutment of bridge, near telegraph post No. 296/16.	97·862	97·896
231		BM.118/65 N	211·4	G.T.S. ○ B.M. On coping at N.W. end of N.E. abutment of bridge, near telegraph post No. 296/6.	94·659	94·692
232		BM.119/65 N	212·8	G.T.S. ○ B.M. On coping at N.W. end of S.W. abutment of bridge, near telegraph post No. 294/20.	61·108	61·129
233		BM.120/65 N	213·9	G.T.S. ○ B.M. On coping at W. corner of base of N.E. distant signal at Dusi Railway Station.	64·694	64·717
234		BM.121/65 N	214·4	G.T.S. ○ B.M. On coping at base of home semaphore at Dusi Railway Station.	69·707	69·732
235		BM.122/65 N	214·6	G.T.S. ○ B.M. On coping at S.E. end of N.E. abutment of bridge over Lyangulya or Nagavali river, near telegraph post No. 293/5.	68·069	68·093
236		BM.123/65 N	214·8	G.T.S. ○ B.M. On coping at S.E. end of S.W. abutment of bridge over Lyangulya or Nagavali river, near telegraph post No. 292/22.	68·314	68·338
237		BM.124/65 N	215·3	G.T.S. ○ B.M. On E. end of S. parapet of bridge, near telegraph post No. 292/8.	64·111	64·133
238		BM.125/65 N	215·9	G.T.S. ○ B.M. On coping at S. end of W. abutment of bridge, near telegraph post No. 291/18.	68·645	68·669

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
239	BM 126 / 65 N	216·7	G.T.S. ○ B.M. On coping at S. end of W. abutment of bridge, near telegraph post No. 290/21.	70·338	70·363
240	BM.127 / 65 N	218·8	G.T.S. ○ B.M. On S. parapet of culvert, near telegraph post No. 288/19.	100·721	100·756
241	BM 128 / 65 N	219·3	112·37 ∧ On E. end of N. parapet of culvert, near telegraph post No. 288/8. (Railway bench-mark).	113·939	113·979
242	BM.129 / 65 N	219·8	G.T.S. ○ B.M. On coping at E. end of platform at Ponduru Railway Station.	117·980	118·021
243	BM 130 / 65 N	219·9	G.T.S. □ B.M. at Ponduru Railway Station. Embedded 6 inches below ground level on E. side of provisional station building, 19 feet from N.E. corner pillar of verandah, 28 and 40 feet respectively from N.E and S.E. corners of building, and 182 feet N.N.W. of telegraph post No. 287/19.	121·336	121·378
1/243	BM 131 / 65 N	223·0	On upper mark-stone of Pindi G. T. Survey Hill Station, lat. 18° 19′ 38″·28, long 83° 45′ 12″·18. A principal station of East Coast Series. (For full description *see* Synoptical Volume).	767·649	767·918
244	BM 132 / 65 N	219·9	G.T.S. ○ B.M. On coping at W. end of platform at Ponduru Railway Station.	118·003	118·044
245	BM.133 / 65 N	220·5	107·96 ∧ On E. end of N. parapet of bridge, near telegraph post No. 287/5 (Railway bench-mark).	109·442	109·480
246	BM 134 / 65 N	221·3	114·67 ∧ On N. parapet of culvert, near telegraph post No. 286/7 (Railway bench-mark).	116·177	116·218
247	BM 135 / 65 N	222·0	126·91 ∧ On coping at N. end of E. abutment of bridge, near telegraph post No. 285/17 (Railway bench-mark).	128·312	128·357
248	BM.136 / 65 N	223·5	135·55 ∧ On coping at N. end of E abutment of bridge, near telegraph post No. 284/3 (Railway bench-mark).	136·975	137·023
249	BM 137 / 65 N	224·0	G.T.S. ○ B.M. On N. parapet of bridge, near telegraph post No. 283/16.	153·316	153·370

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
250	BM.138 / 65 N	225·7	G.T.S. ○ B.M. On coping at base of E. distant signal at Sigadam Railway Station.	202·971	203·042
251	BM.139 / 65 N	226·1	G.T.S. ○ B.M. On coping at base of home semaphore at Sigadam Railway Station.	210·773	210·847
252	BM.140 / 65 N	226·5	G.T.S. ○ B.M. On coping at base of W. distant signal at Sigadam Railway Station.	212·159	212·233
253	BM 141 / 65 N	227·1	G.T.S. ○ B.M. On E. end of S. parapet of bridge, near telegraph post No. 280/15.	218·879	218·956
254	BM.142 / 65 N	228·4	B.M. Ψ 255·84 On N. parapet of culvert, near telegraph post No. 279/8 (Railway bench-mark).	256·998	257·088
255	BM.143 / 65 N	229·1	B.M. Ψ 267·36 On N.W. parapet of culvert, near telegraph post No. 278/15 (Railway bench-mark).	268·542	268·637
256	BM.144 / 65 N	229·9	B.M. Ψ 284·21 On centre of N.W. parapet of bridge, near telegraph post No. 277/20 (Railway bench-mark).	285·406	285·507
257	BM.145 / 65 N	231·8	B.M. Ψ 318·07 On centre of N.W. parapet of bridge, near telegraph post No. 275/22 (Railway bench-mark).	319·169	319·282
258	BM 146 / 65 N	232·4	B.M. Ψ 323·46 On N.W. parapet of culvert, near telegraph post No. 275/7 (Railway bench-mark).	324·636	324·751
259	BM.147 / 65 N	234·1	B.M. Ψ 319·40 On centre of N. parapet of bridge, near telegraph post No. 273/16 (Railway bench-mark).	320·493	320·606
a/259	BM 148 / 65 N	234·3	G.T.S. □ B.M. at Chipurupalle Railway Station. Embedded 6 inches below ground level on E. side of provisional station building, 13 feet E. of S.E. corner pillar of verandah, 38 feet from N.E. and 23 feet from S.E. corners of building, 113 feet N. of centre of main line of railway, and 192 feet N.E. of home semaphore.	320·308	320·421
260	BM 149 / 65 N	234·3	G.T.S. ○ B.M. On coping at base of home semaphore at Chipurupalle Railway Station.	324·086	324·201
261	BM.150 / 65 N	235·4	G.T.S. ○ B.M. On N.W. parapet of bridge, near telegraph post No. 272/8.	310·806	310·916

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
262	BM 151 / 65 N	236·5	B.M. Ψ	On centre of N.W. parapet of bridge, near telegraph post No. 271/4 (Railway bench-mark).	316·792	316·905
263	BM 152 / 65 N	236·8	G T S. ○ B M.	On coping at base of N.E. distant signal at Garividi Railway Station.	311·777	311·888
264	BM 153 / 65 N	237·3	G T S. ○ B M.	On platform coping, 47 feet from home semaphore at Garividi Railway Station.	310·897	311·007
265	BM 154 / 65 N	238·1	B.M. Ψ	On centre of W. parapet of bridge, near telegraph post No. 269/12 (Railway bench-mark).	286·696	286·798
266	BM 155 / 65 N	239·9	B M. Ψ 236 42	On centre of W. parapet of bridge, near telegraph post No. 267/18 (Railway bench-mark).	237·663	237·748
267	BM 156 / 65 N	240·7	B.M. Ψ 214 58	On W. parapet of culvert, near telegraph post No. 266/22 (Railway bench-mark).	215·913	215·990
268	BM.157 / 65 N	241·2	G T S. ○ B M.	On platform coping at N.N.E. end of Chodavaramu Railway Station.	213·769	213·846
269	BM 158 / 65 N	241·2	B.M. Ψ 212·49	On platform coping opposite home semaphore at Chodavaramu Railway Station. (Railway bench-mark).	213·764	213·841
270	BM 159 / 65 N	241·3	G T.S. ○ B.M.	On platform coping at S.S.W. end of Chodavaramu Railway Station.	213·771	213·848
271	BM 160 / 65 N	242·3	B.M. Ψ 85·11	On centre of N.W. parapet of bridge, near telegraph post No. 265/6 (Railway bench-mark).	186·595	186·662
272	BM.161 / 65 N	243·9	B.M. Ψ 145·38	On centre of N.W. parapet of bridge, near telegraph post No. 263/17 (Railway bench-mark).	146·660	146·713
273	BM.162 / 65 N	244·9	B.M. Ψ 120·94	On coping at N.W. end of N.E. abutment of bridge, near telegraph post No. 262/18 (Railway bench-mark).	122·454	122·498
274	BM.163 / 65 N	245·2	B.M. Ψ 121·61	On coping at N.W. end of N.E. abutment of bridge, near telegraph post No. 262/9 (Railway bench-mark).	123·107	123·151

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks			Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
275		BM.164 / 65 N	245·8	B.M. ⋎ 123·74 On centre of N.W. parapet of culvert, near telegraph post No. 261/19 (Railway bench-mark).	125·245	125·290
276		BM.165 / 65 N	246·0	B.M. ⋎ 124·60 On centre of W.N.W. parapet of culvert at N.N.E. end of Nellimarla Railway Station, near telegraph post No. 261/15 (Railway bench-mark).	126·101	126·146
	a / 276	BM.166 / 65 N	246·0	G.T.S. □ B.M. at Nellimarla Railway Station. Embedded 4 inches below ground level to N. of station building, between station name-board at N.N.E. end of platform and high road to Vizianagram, 37 feet from former and 189 feet from centre of latter; 197 feet N. of home semaphore, 25 feet E. of railway boundary stone No. 220, and 191 feet from telegraph post No. 261/15.	120·848	120·892
277		BM.167 / 65 N	246·4	B.M. ⋎ 121·37 On N.W. parapet of culvert, near telegraph post No. 261/4 (Railway bench-mark).	123·072	123·117
278		BM.168 / 65 N	246·8	G.T.S. ○ B.M. On N.E. end of N.W. parapet of bridge, near telegraph post No. 260/19.	118·597	118·640
279		BM.169 / 65 N	247·2	G.T.S. ○ B.M. On coping at W. end of N. abutment of bridge, near telegraph post No. 260/10.	117·415	117·457
280		BM.170 / 65 N	248·0	G.T.S. ○ B.M. On N. end of W. parapet of bridge, near telegraph post No. 259/15.	117·807	117·850
281		BM.171 / 65 N	248·8	G.T.S. ○ B.M. On S.E. parapet of culvert, near telegraph post No. 258/19.	127·571	127·617
282		BM 172 / 65 N	249·6	G.T.S. ○ B.M. On coping at N.W. end of S.W. abutment of bridge, near telegraph post No. 257/24.	140·559	140·610
283		BM 173 / 65 N	251·1	G.T.S. ○ B.M. On S.W. end of N.W. parapet of bridge, near telegraph post No. 256/14.	177·764	177·829
284		BM.174 / 65 N	251·5	G.T.S. ○ B.M. On centre of N.W. parapet of bridge, near telegraph post No. 256/4.	192·493	192·563

Main-Line 39. (Cuttack to Vizianagram).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
285	BM.175 / 65 N	252·8	G.T.S. ○ B.M. On N.E. end of N.W. parapet of bridge, near telegraph post No. 254/19.	195·151	195·222
286	BM 37 / 65 N	252·9	⋀ □ G.T.S. B.M. On E. parapet of bridge, near telegraph post No. 254/16 (Railway bench-mark).	193·760	193·831
287	BM.36 / 65 N	253·2	⋀ G.T.S. B.M. at Vizianagram Railway Station. On coping at N. end of platform. (Railway bench-mark).	196·191	196·263
288	BM 20 / 65 N	253·5	G.T.S. □ B.M. at Vizianagram Railway Station. Embedded on S. side of permanent way inspector's quarters, 4 inches below surface of ground, 38 feet W. of S.E. corner of building, 12 feet S. of S.W. corner pillar of verandah, 225 feet from S.E. corner of station building, 143 feet N.E. of iron cylinder of water-tank, and 162 feet from centre of main line of railway.	190·785	190·855

Branch-Line 39A. (Khurda to Puri).

Designation of Bench-marks		Distance from Khurda	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.40 / 73 H	0·0	G.T.S. □ B.M. at Khurda P.W.D. Inspection Bungalow. Embedded in front or W. verandah of building, level with floor, 15 feet from N.W., 12 feet from N.E. and 25 feet from S.E. corners of verandah, 6 feet to left of middle of door of centre room, and 2 feet from front wall of building.	138·126	138·160
2	BM.63 / 73 H	2·6	B.O.M. On E. end of N. parapet of culvert near telegraph post No. 19.	125·413	125·444
3	BM 64 / 73 H	3·0	B.O.M. On top of mile-stone No. 12 from Pipli.	126·769	126·800
4	BM 65 / 73 H	3·8	B.O.M. On upper surface of lower plinth at E. end of N. parapet of bridge, 18 chains W. of mile-stone No. 11 from Pipli.	108·970	108·997
5	BM.66 / 73 H	4·0	B.O.M. On top of mile-stone No. 11 from Pipli.	115·322	115·350
6	BM 67 / 73 H	5·0	B.O.M. On top of mile-stone No. 10 from Pipli.	121·296	121·326
7	BM 68 / 73 H	6·0	B.O.M. On top of mile-stone No. 9 from Pipli.	121·120	121·150
8	BM.69 / 73 H	6·5	G.T.S. ○ B.M. at Jatni Railway Station. On top of railway boundary pillar, on S. margin of road, 43 chains E. of mile-stone No. 9 from Pipli.	72·955	72·973
9	BM 70 / 73 H	6·6	G.T.S. ○ B.M. On N.W. parapet of culvert, near Jatni Railway Station on S. margin of road from Pipli to Khurda.	66·864	66·881
a / 9	BM 71 / 73 H	6·6	G.T.S. ○ B.M. On centre of N.W. coping of S.W. abutment of bridge, near Jatni Railway Station, 5 chains N.E. of road from Pipli to Khurda.	69·986	70·003
10	BM 72 / 73 H	7·0	B.O.M. On top of mile-stone No. 8 from Pipli.	46·188	46·199
11	BM.73 / 73 H	8·0	B.O.M. On top of mile-stone No. 7 from Pipli.	61·551	61·566
12	BM.74 / 73 H	9·0	B.O.M. On top of mile-stone No. 6 from Pipli.	46·871	46·883
13	BM 75 / 73 H	9·2	B.O.M. On top of furlong-stone No. 5¾ from Pipli.	24·855	24·861
14	BM 76 / 73 H	10·0	B.O.M. On top of mile-stone No. 5 from Pipli.	34·023	34·031

Branch-Line 39A. (Khurda to Puri).

Designation of Bench-marks		Distance from Khurda	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
15	BM.77 / 73 H	10·7	G.T.S. ○ B.M. at Kanti P.W.D. Inspection Bungalow. On floor of verandah, 4 feet N. of N. corner of building.	31·119	31·127
16	BM 78 / 73 H	11·1	B.○M. On top of mile-stone No. 4 from Pipli.	28·053	28·060
17	BM 79 / 73 H	12·1	B.○M. On top of mile-stone No. 3 from Pipli.	32·191	32·199
18	BM 80 / 73 H	13·1	B.○M. On top of mile-stone No. 2 from Pipli.	31·950	31·958
19	BM 81 / 73 H	14·1	B.○M. On top of mile-stone No. 1 from Pipli.	32·152	32·160
20	BM 82 / 73 H	15·5	G.T.S. □ B.M. at Pipli P.W.D. Inspection Bungalow. Embedded in S. end of front or E. verandah, 2 feet from wall, level with floor, 12 feet from S.W. corner of building, and 14 feet from S. pillar of verandah.	34·161	34·170
21	BM 83 / 73 H	16·1	○ B.M. On top of mile-stone No. 24 from Puri and No. 29 from Cuttack.	34·816	34·825
22	BM 84 / 73 H	17·1	○ B.M. On top of mile-stone No. 23 from Puri and No. 30 from Cuttack.	33·176	33·184
23	BM 85 / 73 H	18·1	○ B.M. On top of mile-stone No. 22 from Puri and No. 31 from Cuttack.	33·825	33·834
24	BM.86 / 73 H	19·1	○ B.M. On top of mile-stone No. 21 from Puri and No. 32 from Cuttack.	30·825	30·833
25	BM.87 / 73 H	20·1	○ B.M. On top of mile-stone No. 20 from Puri and No. 33 from Cuttack.	30·684	30·692
26	BM 88 / 73 H	21·1	○ B.M. On top of mile-stone No. 19 from Puri and No. 34 from Cuttack.	29·567	29·575
27	BM.89 / 73 H	22·1	○ B.M. On top of mile-stone No. 18 from Puri and No. 35 from Cuttack.	28·486	28·493
28	BM.90 / 73 H	22·6	B.○M. On top of furlong-stone No. 17½ from Puri.	26·305	26·312
29	BM.91 / 73 H	23·1	○ B.M. On top of mile-stone No. 17 from Puri and No. 36 from Cuttack.	26·693	26·700
30	BM.92 / 73 H	24·1	○ B.M. On top of mile-stone No. 16 from Puri and No. 37 from Cuttack.	30·247	30·255
31	BM 93 / 73 H	25·1	○ B.M. On top of mile-stone No. 15 from Puri and No. 38 from Cuttack.	27·912	27·919

Branch-Line 39A. (Khurda to Puri).

Designation of Bench-marks		Distance from Khurda	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
32	BM.68 / 74 E	26·1	○ B.M. On top of mile-stone No. 14 from Puri and No. 39 from Cuttack.	25·980	25·987
33	BM.69 / 74 E	27·1	○ B.M. On top of mile-stone No. 13 from Puri and No. 40 from Cuttack.	23·492	23·498
a / 33	BM.70 / 74 E	27·9	G.T.S. □ B.M. at Jayapur P.W.D. Inspection Bungalow. Embedded in front or W. verandah of building, level with floor, midway between two doors, 19 and 18 feet respectively from N.E. and N.W. corners of building, 2 feet from wall, and 6 feet from W. edge of verandah.	19·507	19·512
34	BM.71 / 74 E	28·1	○ B.M. On top of mile-stone No. 12 from Puri and No. 41 from Cuttack.	22·505	22·511
35	BM.72 / 74 E	29·1	○ B.M. On top of mile-stone No. 11 from Puri and No. 42 from Cuttack.	21·206	21·211
36	BM.73 / 74 E	30·1	○ B.M. On top of mile-stone No. 10 from Puri and No. 43 from Cuttack.	20·443	20·448
37	BM.74 / 74 E	31·1	○ B.M. On top of mile-stone No. 9 from Puri and No. 44 from Cuttack.	19·540	19·545
38	BM.75 / 74 E	32·1	○ B.M. On top of mile-stone No. 8 from Puri and No. 45 from Cuttack.	21·165	21·171
39	BM.76 / 74 E	33·1	○ B.M. On top of mile-stone No. 7 from Puri and No. 46 from Cuttack.	21·088	21·094
40	BM.77 / 74 E	34·1	○ B.M. On top of mile-stone No. 6 from Puri and No. 47 from Cuttack.	22·807	22·813
41	BM.78 / 74 E	35·1	○ B.M. On top of mile-stone No. 5 from Puri and No. 48 from Cuttack.	20·012	20·017
42	BM.79 / 74 E	36·0	○ B.M. On top of mile-stone No. 4 from Puri and No. 49 from Cuttack.	19·565	19·570
43	BM.80 / 74 E	36·8	B.○M. On platform coping near S.W. corner of temple dedicated to Harchandi Debi, in Charnala village on E. side of main road, and 19 chains N. of mile-stone No. 3 from Puri. *Note.*—This bench-mark is 1 foot below P.W.D. bench-mark (V) cut on W. face of temple.	20·206	20·211
44	BM.81 / 74 E	37·0	○ B.M. On top of mile-stone No. 3 from Puri and No. 50 from Cuttack.	18·719	18·724
45	BM.82 / 74 E	38·2	G.T.S. ○ B.M. at Chandan Tank, Puri. On parapet wall on E. side of S. flight of steps descending to water.	16·758	16·763
46	BM.83 / 74 E	38·5	G.T.S. ○ B.M. On E. end of 2nd step from top at entrance to Town Police Station, Puri.	23·624	23·630

Branch-Line 39A. (Khurda to Puri).

Designation of Bench-marks		Distance from Khurda	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
47	BM 84 / 74 E	38·9	G.T.S. ○ B.M. On S.E. corner of stone base (within railed enclosure) of Arunstambha of temple—a high stone pillar in front of entrance to the great temple of Jagannath, Puri.	34·531	34·540
a / 47	BM.85 / 74 E	39·6	G T S. ○ B.M. at Collector's Kachahri, Puri. On stone pavement of verandah opposite court-house, 1 foot from wall, 27 feet S.W. of letter-box let into wall of building at N.E. corner, and 79 feet from S. corner of court-house.	24·783	24·790
48	BM.86 / 74 E	39·6	G T.S. ○ B.M. at Collector's Kachahri, Puri. On stone pavement of verandah, midway between E. corner of building and E. corner pillar of verandah.	24·772	24·779
49	BM 87 / 74 E	39·7	G.T S. □ B.M. at Puri P.W.D. Inspection Bungalow. Embedded in front or S.E. verandah of building, level with floor, 6 feet to left of centre of door of S. room, 1 foot from wall, and 4 feet from S. corner of building.	25·052	25·059
a / 49	BM.88 / 74 E	39·8	Port Signal Flag-Staff, Puri On knob at base of breech of western one of a pair of cannons embedded, muzzle downwards, in circular platform of flag-staff for support of rope ladder.	18·331	18·336
b / 49	BM.89 / 74 E	39·9	G T S. ○ B.M. at Custom House, Puri. On floor of verandah, 2 feet E. of E. corner of building.	17·336	17·341
c / 49	BM 90 / 74 E	39·9	Meteorological Observatory, Custom House, Puri. The height refers to top surface of mercury in cistern of standard barometer attached to wall within building.	20·074	20·079

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.8 / 64 J	0·0	G.T.S. B.M. □ at Bilaspur Railway Station. Embedded in foundation of station building, at S.W. corner of 2nd pillar (counting from W.) of verandah, about 4 inches below pavement level, 27 feet and 126° from S.W. corner of station building, 42 feet and 100° from centre of base of home signal, and 13 feet from centre of door of station master's office. The letters B.M. are cut on base of pillar.	883·441	883·556
2	BM.15 / 64 J	0·9	G.T.S. ○ B.M. On S.S.W. cap of E.S.E. abutment of bridge, near telegraph post No. 256/15, and 37 chains W.N.W. of mile-post No. 257 from Nagpur.	878·646	878·760
3	BM.16 / 64 J	2·0	G.T.S. ○ B.M. On S. wall of W. abutment of bridge, near telegraph post No. 257/15, and 27 chains W. of mile-post No. 258 from Nagpur.	857·451	857·562
4	BM.17 / 64 J	2·3	G.T.S. ○ B.M. On W. end of S. parapet of bridge, near telegraph post No. 257/22, and 4 chains W. of mile-post No. 258 from Nagpur.	856·929	857·040
5	BM.18 / 64 J	3·4	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of Arpa river bridge No 6, 16 chains N.E. of mile-post No. 259 from Nagpur.	858·302	858·414
6	BM.19 / 64 J	4·2	G.T.S. ○ B.M. On W. end of N. parapet of bridge No. 7, near telegraph post No. 259/24, and mile-post No. 260 from Nagpur.	863·328	863·440
7	BM.20 / 64 J	4·7	G.T.S. ○ B.M. On S.S.W. cap of E.S.E. abutment of bridge No. 8, near telegraph post No. 260/12, and midway between mile-posts Nos. 260 and 261 from Nagpur.	867·691	867·804
8	BM.21 / 64 J	5·6	On ground floor mark-stone of Gathaura G. T. Survey Tower Station, lat. 22° 3′ 34″·11, long. 82° 15′ 13″·74. A principal station of Bilaspur Meridional Series. (For full description *see* Synoptical Volume).	905·784	905·902
9	BM.22 / 64 J	7·3	G.T.S. ○ B.M. On N.N.E. cap of E.S.E. abutment of bridge No. 9, near telegraph post No. 262/6, and 24 chains E.S.E. of mile-post No. 262 from Nagpur.	890·543	890·659
10	BM.23 / 64 J	8·8	G.T.S. ○ B.M. On S.S.W. cap of E.S.E. abutment of bridge, near telegraph post No. 263/21, and 12 chains W.N.W. of mile-post No. 264 from Nagpur.	873·113	873·227

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
11	BM 24 / 64 J	9·3	G.T.S. B.M. □ at Paraghat Railway Station. Embedded at E. side of signal lever, 3 feet N. of home semaphore, and 6 inches below platform level; 14 feet from S.W. and 38 feet from N.W. corners of station building, and 10 feet from S.W. corner of station verandah. The letters B.M. are cut on base of home semaphore.	873·538	873·652
12	BM.25 / 64 J	9·3	G.T.S. ○ B.M. On platform coping opposite booking office at Paraghat Railway Station.	873·730	873·844
13	BM 26 / 64 J	11·5	G.T.S. ○ B.M. On S.S.W. cap of E.S.E. abutment of Lilagar bridge, near telegraph post No. $\frac{266}{10}$, and 33 chains E. of mile-post No. 266 from Nagpur.	828·810	828·919
14	BM.27 / 64 J	13·0	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 14, near telegraph post No. $\frac{267}{23}$, and 12 chains W. of mile-post No 268 from Nagpur.	855·447	855·559
15	BM 28 / 64 J	14·7	G.T.S. ○ B.M. On S cap of E. abutment of bridge, near telegraph post No. $\frac{269}{18}$, and 24 chains W. of mile-post No. 270 from Nagpur.	883·429	883·545
16	BM 29 / 64 J	15·6	G.T.S. ○ B.M. On S. cap of E abutment of bridge No. 16, near telegraph post No. $\frac{270}{14}$, and 34 chains W. of mile-post No. 271 from Nagpur.	887·410	887·526
17	BM 30 / 64 J	16·6	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 18, near telegraph post No. $\frac{271}{15}$, and 47 chains E. of mile-post No. 271 from Nagpur.	900·508	900·626
18	BM.31 / 64 J	17·5	G.T.S. ○ B.M. On platform coping opposite booking office at Akaltara Railway Station.	920·424	920·545
19	BM 32 / 64 J	17·5	G.T.S. B.M. □ at Akaltara Railway Station. Embedded at E. side of home semaphore, a few inches below surface of platform, 18 feet from N.E. and 41 feet from S.E. corners of station building, and 14 feet from N.E. corner of verandah. The letters B.M. are cut on E. face of masonry of signal lever.	920·536	920·657
$\frac{1}{19}$	BM 33 / 64 J	19·2	On top of circular pillar of Kotgarh G. T. Survey Platform Station, lat. 22° 3′ 1″·03, long. 82° 26′ 3″·73. A principal station of Bilaspur Meridional Series. (For full description *see* Synoptical Volume).	1007·274	1007·406

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
20	BM.34 / 64 J	18·4	G.T.S. ○ B.M.	On N. wall of W. abutment of culvert opening No. 19, near telegraph post No. 273/10, and 32 chains E. of mile-post No. 273 from Nagpur.	895·061	895·178
21	BM.35 / 64 J	18·9	G.T.S. ○ B.M.	On N. cap of W. abutment of bridge No. 20, near telegraph post No. 273/22, and 7 chains W. of mile-post No. 274 from Nagpur.	889·733	889·850
22	BM.36 / 64 J	19·6	G.T.S. ○ B.M.	On N. cap of W. abutment of bridge No. 21, near telegraph post No 274/18, and 24 chains W. of mile-post No. 275 from Nagpur.	884·187	884·303
23	BM.37 / 64 J	20·6	G.T.S. ○ B.M.	On N. cap of E. abutment of bridge No. 22, near telegraph post No. 275/16, and 28 chains W. of mile-post No. 276 from Nagpur.	874·376	874·490
24	BM 38 / 64 J	22·5	G.T.S. ○ B.M.	On S. cap of E. abutment of bridge No. 23, near telegraph post No. 277/12, and 40 chains W. of mile-post No. 278 from Nagpur.	858·983	859·096
25	BM.39 / 64 J	23·8	G.T.S. ○ B.M.	On E. end of S. parapet of culvert opening No. 25, near telegraph post No. 278/23, and 12 chains W. of mile-post No. 279 from Nagpur.	874·733	874·849
26	BM.40 / 64 J	24·9	G.T.S. ○ B.M.	On S. cap of E. abutment of bridge No. 27, near telegraph post No. 279/24, and 4 chains W. of mile-post No. 280 from Nagpur.	876·905	877·021
27	BM.41 / 64 J	25·9	G.T.S. ○ B.M.	On E. end of S. parapet of culvert No. 30, near telegraph post No. 281/1, and 3 chains E. of mile-post No. 281 from Nagpur.	881·510	881·626
28	BM.42 / 64 J	26·4	G.T.S. ○ B.M.	On E. end of S. parapet of culvert No. 31, near telegraph post No. 281/13, 44 chains E. of mile-post No. 281, and 29 chains W. of Naila Railway Station.	885·703	885·820
29	BM.43 / 64 J	26·8	G.T.S. ○ B.M.	On platform coping opposite booking office at Naila Railway Station.	887·440	887·557

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/29	BM.44/64 J	26·8	G.T.S. ○ B.M. On base of home semaphore at Naila Railway Station.	887·832	887·949
30	BM.45/64 J	28·2	G.T.S. ○ B.M. On S. cap of W. abutment of bridge No. 33, near telegraph post No. 283/7, and 21 chains E. of mile-post No 283 from Nagpur.	885·619	885·736
31	BM.46/64 J	31·4	G.T.S. ○ B.M. On S.E. cap of S.W. abutment of bridge, near telegraph post No. 286/10, and 32 chains N.E. of mile-post No. 286 from Nagpur.	826·906	827·015
32	BM 47/64 J	31·7	G.T.S. ○ B.M. On N W cap of S.W abutment of Hasdo river bridge, 28 chains S W of mile-post No. 287 from Nagpur.	819·374	819·482
33	BM 48/64 J	31·9	G.T.S. ○ B.M On N W. cap of N.E abutment of Hasdo river bridge, 11 chains S.W. of mile-post No. 287 from Nagpur.	819·377	819·485
34	BM 49/64 J	33·5	G.T.S. ○ B.M. On platform coping opposite booking office at Champa Railway Station.	852·915	853·027
a/34	BM 50/64 J	33·5	G.T.S. B.M. □ at Champa Railway Station. Embedded at W. side of station, 2 feet from wall and 1 foot below plinth or basement; 20 feet from N.W and 7 feet from S.W. corners of station building, 15 feet from S.W. corner of verandah, and 21 feet from home semaphore. The letters B M. are cut on W face of station.	852·244	852·356
35	BM 51/64 J	34·5	G.T.S. ○ B.M. On S. cap of W. abutment of bridge No. 37, 40 chains W. of mile-post No. 290 from Nagpur.	843·701	843·812
36	BM 52/64 J	35·8	G.T.S. ○ B.M. On S cap of W. abutment of bridge No. 39, near telegraph post No. 290/10, and 18 chains W. of mile-post No. 291 from Nagpur.	839·712	839·822
37	BM 53/64 J	36·7	G T S. ○ B M. On S. cap of W. abutment of bridge, near telegraph post No. 291/16, and 29 chains W. of mile-post No. 292 from Nagpur.	842·290	842·401
38	BM.54/64 J	38·6	G.T.S. ○ B.M. On N. wall of E. abutment of drain No. 41, near telegraph post No 293/14, and 35 chains W. of mile-post No. 294 from Nagpur.	835·430	835·540

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
39	BM.55 / 64 J	40·3	G.T.S. ○ B.M. On S. cap of E. abutment of Son river bridge No. 45, near telegraph post No. $\frac{295}{6}$, and 19 chains E. of mile-post No. 295 from Nagpur.	820·283	820·391
40	BM.56 / 64 J	41·8	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 44, near telegraph post No. $\frac{296}{20}$, and 18 chains W. of mile-post No. 297 from Nagpur.	824·292	824·401
41	BM.57 / 64 J	43·1	G.T.S. ○ B.M. On platform coping opposite booking office at Baraduar Railway Station.	840·082	840·194
42	BM.58 / 64 J	43·1	G.T.S. B.M. □ at Baraduar Railway Station. Embedded in front or N. verandah of station, flush with pavement, to right of window of booking office, 2 feet from wall, 21 feet from N.W. and 16 feet from N.E. corners of station building, and 28 feet from home semaphore.	840·488	840·600
43	BM.59 / 64 J	45·2	G.T.S. ○ B.M. On stone slab over N. opening of drain, near telegraph post No. $\frac{300}{2}$, and 6 chains E. of mile-post No. 300 from Nagpur.	817·271	817·379
44	BM 60 / 64 J	46·7	G.T.S. ○ B.M. On stone slab over S. opening of drain, near telegraph post No. $\frac{301}{16}$, and 31 chains W. of mile-post No. 302 from Nagpur.	795·477	795·582
45	BM.61 / 64 J	48·1	G.T.S. ○ B.M. On S. cap of W. abutment of Usaor river bridge No. 45, near telegraph post No. $\frac{303}{2}$, and 6 chains E. of mile-post No. 303 from Nagpur.	778·612	778·715
46	BM.62 / 64 J	49·2	G.T.S. ○ B.M. On N. cap of E. abutment of bridge No. 48, near telegraph post No. $\frac{304}{3}$, and 8 chains E. of mile-post No. 304 from Nagpur.	768·450	768·551
47	BM.63 / 64 J	49·6	G.T.S. ○ B.M. On S. cap of E. abutment of bridge No. 49, near telegraph post No. $\frac{304}{13}$, and 40 chains W. of mile-post No. 305 from Nagpur.	766·203	766·304
48	BM.64 / 64 J	51·7	G.T.S. ○ B.M. On N. cap of E. abutment of Kotri river bridge No. 50, near telegraph post No. $\frac{306}{16}$, and 30 chains W. of mile-post No. 307 from Nagpur.	762·518	762·619

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
49	BM 65 / 64 J	52·3	G.T.S. ○ B.M. On platform coping, 104 feet from W. end, at Sakti Railway Station.	767·235	767·336
50	BM.66 / 64 J	52·4	G T.S. B.M. □ at Sakti Railway Station. Embedded 6 inches below platform level, 8 feet W. of home semaphore and close to S.W. corner of signal lever, 20 feet from centre of W. archway of station verandah, and 19 feet from edge of platform.	766·534	766·635
a/50	BM 67 / 64 J	52·4	G.T.S. ○ B.M. On platform coping opposite booking office at Sakti Railway Station.	767·125	767·226
b/50	BM 68 / 64 J	52·4	G T.S. ○ B M. On platform coping at E. end of Sakti Railway Station.	767·113	767·214
51	BM.69 / 64 J	53·1	G T.S. ○ B.M. On N. end of E. abutment of rail opening, near telegraph post No. 307/24, and 2 chains W. of mile-post No. 308 from Nagpur.	772·550	772·653
52	BM 70 / 64 J	53·7	G.T.S. ○ B M. On N. cap of E. abutment of bridge over Bori river, near telegraph post No. 308/14, and 37 chains W. of mile-post No. 309 from Nagpur.	778·332	778·435
53	BM 1 / 64 N	55·6	G.T.S. ○ B.M. On N. cap of E. abutment of bridge, near telegraph post No 310/13, and 39 chains E. of mile-post No. 310 from Nagpur.	781·781	781·885
54	BM.2 / 64 N	57·6	G.T.S. ○ B.M. On N. cap of E. abutment of bridge over Supnai nala, near telegraph post No. 312/11, and 34 chains E. of mile-post No. 312 from Nagpur.	780·315	780·419
55	BM 1 / 64 O	59·6	G.T.S. ○ B.M. On W end of S. parapet of culvert, near telegraph post No. 314/12, and 37 chains E. of mile-post No. 314 from Nagpur.	811·384	811·493
56	BM.2 / 64 O	60·8	G.T.S. ○ B.M. On N. parapet of E. abutment of girder opening, between telegraph posts Nos. 315/15 and 315/16, and 30 chains W. of mile-post No. 316 from Nagpur.	823·315	823·425
57	BM.3 / 64 O	62·1	G.T.S. ○ B.M. On platform coping in front of booking office at Kharsia Railway Station.	845·066	845·179
a/57	BM.4 / 64 O	62·1	Rail opposite booking office at Kharsia Railway Station.	843·610	843·723

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
b/57	BM.5/64 O	62·1	G.T.S. B.M. □ at Kharsia Railway Station. Embedded in station platform within railed enclosure of home semaphore and levers of distant signals, and 9 inches below platform level; close to letters B.M. cut on N. side of base of home semaphore, 13 feet from N.E. corner of station verandah, 16 feet from edge of platform, and 22 feet from B.M. No. 57.	844·648	844·761
58	BM.6/64 O	63·9	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 318/17, and 27 chains W. of mile-post No. 319 from Nagpur.	798·516	798·622
59	BM.7/64 O	64·9	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, between telegraph posts Nos. 319/15 and 319/16, and 29 chains W. of mile-post No. 320 from Nagpur.	803·705	803·812
60	BM.8/64 O	65·2	G.T.S. ○ B.M. On N. cap of W. abutment of bridge, between telegraph posts Nos. 320/1 and 320/2, and 2 chains E. of mile-post No. 320 from Nagpur.	790·087	790·192
61	BM.9/64 O	66·7	G.T.S. ○ B.M. On N. cap of E. abutment of bridge, near telegraph post No. 321/12, and 36 chains E. of mile-post No. 321 from Nagpur.	757·283	757·384
62	BM 10/64 O	68·0	G.T.S. ○ B.M. On coping at S.W. end of W. arch of bridge over Mand river, near telegraph post No. 322/20, and 16 chains W. of mile-post No. 323 from Nagpur.	758·773	758·875
63	BM.11/64 O	68·2	G.T.S. ○ B.M. On coping at S.E. end of E. arch of bridge over Mand river, near mile-post No. 323 from Nagpur.	758·870	758·972
64	BM 12/64 O	68·9	G.T.S. ○ B.M. On N. cap of W. abutment of culvert, between telegraph posts Nos. 323/17 and 323/18, and 28 chains W. of mile-post No. 324 from Nagpur.	748·229	748·329
65	BM.13/64 O	69·1	G.T.S. ○ B.M. On N. cap of W. abutment of bridge, between telegraph posts Nos. 323/23 and 323/24, and 7 chains W. of mile-post No. 324 from Nagpur.	747·238	747·338
66	BM 14/64 O	70·1	G.T.S. ○ B.M. On N. cap of E. abutment of bridge, near telegraph post No. 324/22, and 10 chains W. of mile-post No. 325 from Nagpur.	759·265	759·366

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
67	BM 3 / 64 N	70·9	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 325/18, and 23 chains W. of mile-post No. 326 from Nagpur.	783·701	783·805
68	BM.4 / 64 N	71·3	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 326/3, and 10 chains E. of mile-post No. 326 from Nagpur.	792·140	792·245
69	BM.15 / 64 O	71·9	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 326/17, and 25 chains W. of mile-post No. 327 from Nagpur.	784·399	784·504
70	BM.16 / 64 O	72·9	G.T.S. ○ B.M. On platform coping opposite booking office at Naharpali Railway Station.	784·842	784·947
a/70	BM.17 / 64 O	72·9	G.T.S. B.M. □ at Naharpali Railway Station. Embedded in station platform, within railed enclosure of home semaphore and levers of distant signals, and 6 inches below platform level; close to letters B.M. cut on N. side of base of home semaphore, 12 feet from N E. corner of station verandah, 17 feet from edge of platform, and 22 feet from B.M. No. 70.	784·524	784·629
71	BM.18 / 64 O	73·9	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. 328/14, and 30 chains W. of mile-post No. 329 from Nagpur.	779·126	779·231
72	BM.19 / 64 O	74·2	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. 328/22, and 5 chains W. of mile-post No. 329 from Nagpur.	778·873	778·978
73	BM 20 / 64 O	75·5	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 330/7, and 20 chains E. of mile-post No. 330 from Nagpur.	767·027	767·131
74	BM 21 / 64 O	75·9	G.T.S. ○ B.M. On N. cap of W. abutment of bridge, near telegraph post No. 330/16, and 31 chains W. of mile-post No. 331 from Nagpur.	762·256	762·360
75	BM.22 / 64 O	76·7	G.T.S. ○ B.M. On N. cap of E. abutment of bridge, near telegraph post No. 331/11, and 36 chains E. of mile-post No. 331 from Nagpur.	754·851	754·954

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks			Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
76		BM.23 / 64 O.	77·4	G.T.S. ○ B.M. On N. cap of E. abutment of bridge, near telegraph post No. 332/3, and 5 chains E. of mile-post No. 332 from Nagpur.	744·987	745·089
77		BM.24 / 64 O	78·1	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. 332/19, and 13 chains W. of mile-post No. 333 from Nagpur.	766·980	767·085
78		BM.25 / 64 O	78·9	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 333/14, and 32 chains W. of mile-post No. 334 from Nagpur.	774·679	774·786
79		BM.26 / 64 O	79·4	G.T.S. ○ B.M. On N. cap of E. abutment of rail opening, between telegraph posts Nos. 334/3 and 334/4, and 9 chains E. of mile-post No. 334 from Nagpur.	776·029	776·136
80		BM 27 / 64 O	80·0	G.T.S. ○ B.M. On S. cap of E. abutment of bridge, near telegraph post No. 334/20, and 19 chains W. of mile-post No. 335 from Nagpur.	776·128	776·236
81		BM.28 / 64 O	81·3	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 336/2, and 2 chains E. of mile-post No. 336 from Nagpur.	752·298	752·403
82		BM 29 / 64 O	82·1	G T.S. ○ B.M. On N. cap of E. abutment of bridge, near telegraph post No. 336/23, and 11 chains W. of mile-post No. 337 from Nagpur.	726·502	726·604
83		BM.30 / 64 O	82·5	G T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 337/7, and 23 chains E. of mile-post No. 337 from Nagpur.	711·910	712·010
84		BM.31 / 64 O	83·0	G.T.S. ○ B.M. On platform coping opposite booking office at Raigarh Railway Station.	704·208	704·307
	a/84	BM.32 / 64 O	83·0	Rail opposite booking office at Raigarh Railway Station.	702·912	703·010
	b/84	BM.33 / 64 O	83·1	G.T.S. B.M. □ at Raigarh Railway Station. Embedded in station platform, within railed enclosure of home semaphore and levers of distant signals, and 8 inches below platform level; close to letters B.M. cut on S.E. corner of home semaphore, 12 feet from S.W. corner of station verandah, 18 feet from edge of platform, and 21 feet from B.M. No. 84.	703·854	703·953

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
85	BM.34 / 64 O	83·7	G.T.S. ○ B.M.	On E. cap of S. parapet of E. arch of bridge over Kelu river, near telegraph post No. 338/9, and 35 chains E. of mile-post No. 338 from Nagpur.	704·792	704·891
86	BM 35 / 64 O	84·9	G.T.S. ○ B.M.	On S. cap of W. abutment of bridge, near telegraph post No. 339/16, and 28 chains W. of mile-post No. 340 from Nagpur.	703·731	703·830
87	BM.36 / 64 O	85·8	G.T.S. ○ B.M.	On S. cap of W. abutment of bridge, near telegraph post No. 340/13, and 38 chains W. of mile-post No. 341 from Nagpur.	720·285	720·386
88	BM 37 / 64 O	86·2	G.T.S. ○ B.M.	On S. cap of W. abutment of bridge, near telegraph post No. 340/23, and 6 chains W. of mile-post No. 341 from Nagpur.	729·897	729·999
89	BM 38 / 64 O	87·4	G.T.S. ○ B.M.	On S. cap of W. abutment of bridge, near telegraph post No. 342/4, and 10 chains E. of mile-post No. 342 from Nagpur.	737·709	737·813
90	BM 39 / 64 O	88·2	G.T.S. ○ B.M.	On S. cap of E. abutment of bridge, near telegraph post No. 342/22, and 8 chains W. of mile-post No. 343 from Nagpur.	727·753	727·856
91	BM.40 / 64 O	89·4	G.T.S. ○ B.M.	On S. cap of E. abutment of bridge, near telegraph post No. 344/3, and 8 chains E. of mile-post No. 344 from Nagpur.	740·050	740·154
92	BM 41 / 64 O	90·2	G.T.S. ○ B.M.	On N. cap of W. abutment of bridge, near telegraph post No. 344/21, and 2 chains W. of mile-post No. 345 from Nagpur.	734·882	734·986
93	BM 42 / 64 O	91·2	G.T.S. ○ B.M.	On N. cap of W. abutment of bridge over Supnai nala, near telegraph post No. 345/20, and 11 chains W. of mile-post No. 346 from Nagpur.	711·990	712·090
94	BM.43 / 64 O	91·8	G.T.S. ○ B.M.	On N. cap of E. abutment of bridge, near telegraph post No. 346/13, and 38 chains W. of mile-post No. 347 from Nagpur.	712·084	712·184

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
95	BM.44 / 64 O	92·5	G.T.S. ○ B.M. On N. cap of W. abutment of bridge, near telegraph post No. 347/6, and 19 chains E. of mile-post No. 347 from Nagpur.	731·342	731·445
96	BM.45 / 64 O	93·6	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 348/8, and 26 chains E. of mile-post No. 348 from Nagpur.	745·641	745·746
97	BM.46 / 64 O	94·3	G.T.S. ○ B.M. On N parapet of E. abutment of rail opening at mile-post No. 349 from Nagpur.	752·188	752·294
a/97	BM 47 / 64 O	94·4	G.T.S. B.M. □ at Jamga Railway Station. Embedded in station platform, within railed enclosure of home semaphore and levers of distant signals, and 5 inches below platform level; close to letters B.↓M. cut on S.E. corner of base of home semaphore, 19 feet from S.W. corner of station building, 13 feet from W. pillar of station verandah, and 18 feet from edge of platform.	752·950	753·056
98	BM 48 / 64 O	95·0	G.T.S. ○ B.M. On coping at S.W. end of W. arch of bridge over Kur nala, near telegraph post No. 349/17, and opposite E. distant signal at Jamga Railway Station.	766·189	766·297
99	BM.49 / 64 O	95·8	G.T.S. ○ B.M. On N. cap of W. abutment of bridge, near telegraph post No. 350/13, and 37 chains W. of mile-post No. 351 from Nagpur.	811·234	811·348
100	BM.50 / 64 O	96·6	G.T.S. ○ B.M. On S. parapet of W. abutment of rail opening at telegraph post No. 351/9, and 27 chains E. of mile-post No. 351 from Nagpur.	851·713	851·833
101	BM 51 / 64 O	99·7	G.T.S. ○ B.M. On S. cap of W. abutment of bridge, near telegraph post No. 354/12, and 34 chains E. of mile-post No. 354 from Nagpur.	855·570	855·692
102	BM.52 / 64 O	100·5	G.T.S. ○ B.M. On E. end of S. parapet of bridge over Kursi nala, near telegraph post No. 355/5, and 16 chains E. of mile-post No. 355 from Nagpur.	834·881	835·000
103	BM.53 / 64 O	102·7	G.T.S. ○ B.M. On S. parapet of E. arch of bridge over Hingir nala, near telegraph post No. 357/8, and 27 chains E. of mile-post No. 357 from Nagpur.	846·447	846·567

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
104	BM.54/64 O	104·2	G.T.S. ○ B.M. On S. parapet of culvert, near telegraph post No. 358/23, and 7 chains W. of mile-post No. 359 from Nagpur.	919·322	919·452
105	BM.55/64 O	105·9	G.T.S. ○ B.M. On N.W. corner of base of W. distant signal at Kanika Railway Station.	890·490	890·615
106	BM.56/64 O	106·2	G.T.S. ○ B.M. On S parapet of W. abutment of bridge, near telegraph post No 360/19, and 13 chains W. of mile-post No. 361 from Nagpur.	887·419	887·544
107	BM.57/64 O	106·4	G.T.S. ○ B.M. On platform coping opposite booking office at Kanika Railway Station.	888·608	888·733
a/107	BM 58/64 O	106·4	G.T.S. B.M. □ at Kanika Railway Station. Embedded in station platform, within railed enclosure of home semaphore and levers of distant signals, and 5 inches below platform level; close to letters B M cut on N.W. corner of base of home semaphore, 11 feet from N.E. corner of station building, 8 feet E. of E. pillar of station verandah, 17 feet from edge of platform, and 21 feet from B.M. No 107.	888·458	888·583
108	BM 59/64 O	106·9	G.T.S. ○ B.M. On S E. corner of base of E. distant signal at Kanika Railway Station.	874·994	875·117
109	BM.60/64 O	107·8	G.T.S. ○ B.M. On W. end of N. parapet of bridge, near telegraph post No. 362/10, and 34 chains E. of mile-post No. 362 from Nagpur.	831·351	831·468
110	BM.61/64 O	108·6	G.T.S. ○ B.M. On W. end of S. parapet of bridge, near telegraph post No. 363/7, and 21 chains E. of mile-post No. 363 from Nagpur.	818·178	818·293
111	BM 62/64 O	109·7	G.T.S. ○ B.M. On S. parapet of W. arch of bridge, near telegraph post No. 364/11, and 31 chains E. of mile-post No. 364 from Nagpur.	781·477	781·586
112	BM.63/64 O	110·3	G.T.S. ○ B.M. On S. end of W. abutment of bridge at mile-post No. 365 from Nagpur.	781·834	781·943
113	BM.64/64 O	111·4	G.T.S. ○ B.M. On S. parapet of bridge, near telegraph post No 366/1, and 3 chains E. of mile-post No. 366 from Nagpur.	765·126	765·234
114	BM.65/64 O	113·2	G.T.S. ○ B.M. On W. end of N. parapet of bridge, between telegraph posts Nos. 367/20 and 367/21, and 14 chains W. of mile-post No. 368 from Nagpur.	745·717	745·824

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
115	BM.66 / 64 O	113·6	G.T.S. ○ B.M. On S. end of E. abutment of bridge, near telegraph post No. 368/7, and 20 chains E. of mile-post No. 368 from Nagpur.	757·831	757·939
116	BM.67 / 64 O	113·8	G.T.S. ○ B.M. On S. end of W. abutment of rail opening, near telegraph post No. 368/10, and 35 chains E. of mile-post No. 368 from Nagpur.	764·002	764·111
117	BM.68 / 64 O	114·7	G.T.S. ○ B.M. On platform coping opposite booking office at Belpahar Railway Station.	761·793	761·903
a/117	BM.69 / 64 O	114·7	G.T.S. B.M. □ at Belpahar Railway Station. Embedded in station platform, within railed enclosure of home semaphore and levers of distant signals, and 6 inches below platform level; close to letters B.M. cut on N. corner of base of home semaphore, 12 feet from E. corner of station building, 18 feet from edge of platform, and 20 feet from B.M. No. 117.	761·686	761·796
118	BM.70 / 64 O	115·1	G.T.S. ○ B.M. On base of E. distant signal at Belpahar Railway Station.	748·229	748·337
119	BM.71 / 64 O	115·7	G.T.S. ○ B.M. On E. end of S. parapet of bridge, near telegraph post No. 370/10, and 29 chains E. of mile-post No 370 from Nagpur.	740·588	740·695
120	BM.72 / 64 O	120·0	G.T.S. ○ B.M. On W. end of S. parapet of bridge, between telegraph posts Nos. 374/16 and 374/17, and 25 chains W. of mile-post No. 375 from Nagpur.	673·056	673·154
121	BM.73 / 64 O	121·4	G.T.S. ○ B.M. On coping at S. end of W. abutment of bridge over Ib river, near telegraph post No. 376/2, and 4 chains E. of mile-post No. 376 from Nagpur.	664·739	664·835
122	BM.74 / 64 O	121·7	G.T.S. ○ B.M. On coping at S. end of E. abutment of bridge over Ib river, near telegraph post No. 376/9, and 26 chains E. of mile-post No. 376 from Nagpur.	664·793	664·889
123	BM.75 / 64 O	122·2	G.T.S. ○ B.M. On parapet wall at S. end of E. abutment of bridge, near telegraph post No. 376/23, and 8 chains W. of mile-post No. 377 from Nagpur.	656·366	656·461

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
124	BM.76 / 64 O	123·4	G.T.S. ○ B.M. On S. parapet of culvert, near telegraph post No. 378/2, and 4 chains E. of mile-post No. 378 from Nagpur.	639·465	639·557
125	BM.77 / 64 O	125·2	G.T.S. ○ B.M. On S. parapet of drain, near telegraph post No. 379/21, and 12 chains W. of mile-post No. 380 from Nagpur.	686·984	687·082
126	BM 1 / 73 C	126·6	G.T.S. ○ B.M. On S. end of E. abutment of rail opening, near telegraph post No. 381/6, and 18 chains E. of mile-post No. 381 from Nagpur.	733·293	733·398
127	BM 2 / 73 C	126·8	G.T.S. ○ B.M. at Jharsuguda Railway Station. On base of W. distant signal on main line to Nagpur.	740·907	741·012
128	BM.3 / 73 C	127·4	G.T.S. ○ B.M. On platform coping opposite telegraph office at Jharsuguda Railway Station.	757·055	757·162
129	BM.4 / 73 C	127·5	G.T.S. B.M. □ at Jharsuguda Railway Station. Embedded in W. end of station verandah, level with stone pavement, immediately below letters B.M. cut on sill of refreshment room window, 4 and 9 feet respectively from S.W. and N.W. corners of verandah, and 52 feet from edge of platform.	758·046	758·154
130	BM.5 / 73 C	128·3	G.T.S. ○ B.M. at Jharsuguda Railway Station. On base of S. distant signal on Sambalpur branch-line.	743·878	743·984
131	BM 6 / 73 C	128·7	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 1, near telegraph post No. 1/1, and 2 chains S. of mile-post No. 1 from Jharsuguda.	732·440	732·545
132	BM 7 / 73 C	131·1	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 3, between telegraph posts Nos. 3/7 and 3/8, and 32 chains S. of mile-post No. 3 from Jharsuguda.	679·909	680·008
133	BM.8 / 73 C	132·7	G.T.S. ○ B.M. On top of E. recess wall of N. abutment of Bonam river bridge No. 8, near telegraph post No. 5/1, and ½ chain S. of mile-post No. 5 from Jharsuguda.	670·718	670·816
134	BM.9 / 73 C	132·8	G.T.S. ○ B.M. On E. parapet of S. abutment of Bonam river bridge No. 8, near telegraph post No. 5/4, and 11 chains S. of mile-post No. 5 from Jharsuguda.	670·887	670·986
135	BM.10 / 73 C	133·8	G.T.S. ○ B.M. On E. cap of S. abutment of bridge No. 11, near telegraph post No. 6/2, and 10 chains S. of mile-post No. 6 from Jharsuguda.	701·445	701·549

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks			Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
136		BM.11 / 73 O	135·9	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 15, near telegraph post No. 8/5, and 21 chains S. of mile-post No. 8 from Jharsuguda.	709·985	710·092
137		BM.12 / 73 O	137·1	G.T.S. ○ B.M. On base of home semaphore at Lapanga Railway Station.	691·026	691·131
	a / 137	BM.13 / 73 O	137·2	G.T.S. B.M. □ at Lapanga Railway Station. Embedded in N.E. corner of verandah, close to E. wall of N. arch, and level with stone pavement; 22 feet from centre of door of booking office, and 9 feet from centre of door of store room.	691·254	691·359
138		BM.14 / 73 O	137·7	G.T.S. ○ B.M. On S.W. corner of base of S. distant signal at Lapanga Railway Station.	670·556	670·658
139		BM.15 / 73 O	138·6	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 22 at mile-post No. 11 from Jharsuguda.	668·695	668·797
140		BM.16 / 73 O	139·6	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 26 at mile-post No. 12 from Jharsuguda.	669·707	669·810
141		BM.17 / 73 O	140·3	G.T.S. ○ B.M. On E. cap of S. abutment of bridge No. 27 over Ponli nala, near telegraph post No. 12/12, and 20 chains N. of mile-post No. 13 from Jharsuguda.	656·091	656·191
142		BM.18 / 73 O	141·6	G.T.S. ○ B.M. On W. cap of S. abutment of bridge No. 29, near telegraph post No. 13/16, and ½ chain N. of mile-post No. 14 from Jharsuguda.	672·376	672·480
143		BM.19 / 73 O	143·0	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 32, near telegraph post No. 15/6, and 30 chains S. of mile-post No. 15 from Jharsuguda.	689·368	689·475
144		BM.20 / 73 O	143·4	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 33, near telegraph post No. 15/13, and 17 chains N. of mile-post No. 16 from Jharsuguda.	667·226	667·330
	a / 144	BM.21 / 73 O	143·7	G.T.S. B.M. □ at Rengali Railway Station. Embedded in S.W. corner of verandah, close to W. wall of S. arch, and level with stone pavement; 22 feet from centre of door of booking office, and 9 feet from centre of door of store room.	662·151	662·254

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
145	BM.22 / 73 C	144·2	G.T.S. ○ B.M. On E. cap of S. abutment of bridge No. 35 over Rengali nala, near telegraph post No. $\frac{16}{10}$, and 35 chains N. of mile-post No. 17 from Jharsuguda.	653·767	653·870
146	BM.23 / 73 C	145·9	G.T.S. ○ B.M. On E. cap of N. abutment of culvert No. 40, near telegraph post No. $\frac{18}{5}$, and 25 chains S. of mile-post No. 18 from Jharsuguda.	662·844	662·949
147	BM.24 / 73 C	147·6	G.T.S. ○ B.M. On E. parapet of drain No. 43, near telegraph post No. $\frac{20}{1}$, and 2 chains S. of mile-post No. 20 from Jharsuguda.	610·438	610·536
148	BM 25 / 73 C	147·9	G.T.S. ○ B.M. On W. parapet of bridge No. 44, near telegraph post No $\frac{20}{4}$, and 22 chains S. of mile-post No. 20 from Jharsuguda.	600·289	600·385
149	BM 26 / 73 C	148·7	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 47, near telegraph post No. $\frac{21}{2}$, and 10 chains S. of mile-post No. 21 from Jharsuguda.	569·920	570·012
a / 149	BM 27 / 73 C	149·1	G.T.S. B.M. □ at Sason Railway Station. Embedded in S W. corner of verandah, close to W. wall of S. arch, and level with stone pavement; 22 feet from centre of door of booking office, and 9 feet from centre of door of store room.	564·162	564·253
150	BM 28 / 73 C	149·5	G.T.S. ○ B.M. On W. cap of S. abutment of bridge No. 48, near telegraph post No. $\frac{21}{15}$, and 8 chains N. of mile-post No. 22 from Jharsuguda.	553·438	553·527
151	BM.29 / 73 C	149·9	G.T.S. ○ B.M. On W. parapet of drain No. 50, near telegraph post No. $\frac{22}{6}$, and 26 chains S. of mile-post No. 22 from Jharsuguda.	548·356	548·445
a / 151	BM.30 / 73 C	150·9	G.T.S. ○ B.M. On E. cap of N. abutment of bridge No. 53 over Jamion nala, near telegraph post No. $\frac{23}{5}$, and 17 chains S. of mile-post No. 23 from Jharsuguda.	533·413	533·499
152	BM.31 / 73 C	151·7	G.T.S. ○ B.M. On W. parapet of drain No. 55, near telegraph post No $\frac{24}{1}$, and 5 chains S. of mile-post No. 24 from Jharsuguda.	545·349	545·438

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks			Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
153		BM.32 / 73 C	152·1	G.T.S. ○ B.M. On N. end of W. parapet of bridge No. 57, near telegraph post No. 24/9, and 37 chains N. of mile-post No. 25 from Jharsuguda.	534·962	535·050
154		BM.33 / 73 C	152·4	G.T.S. ○ B.M. On W. end of S. abutment of bridge No. 58, near telegraph post No. 24/13, and 17 chains N. of mile-post No. 25 from Jharsuguda.	523·643	523·729
155		BM.34 / 73 C	153·6	G.T.S. ○ B.M. On E. cap of S. abutment of bridge No. 62 over Harrad nala, near telegraph post No. 25/15, and 3 chains N. of mile-post No. 26 from Jharsuguda.	509·243	509·327
156		BM.78 / 64 O	154·6	G.T.S. ○ B.M. On S.E. cap of N.E. abutment of bridge No. 64, near telegraph post No. 27/1, and 4 chains S.W. of mile-post No. 27 from Jharsuguda.	516·372	516·458
157		BM.79 / 64 O	156·0	G.T.S. ○ B.M. On S.E. coping of N.E. abutment of bridge No. 65, near telegraph post No. 28/6, and 30 chains S.W. of mile-post No. 28 from Jharsuguda.	510·764	510·849
158		BM.80 / 64 O	156·4	Level crossing, Sambalpur. Top of stone slab embedded upright in a mound, on N. side of railway line and E. of road to Jharsuguda, opposite and 2 chains from telegraph post No. 348/7.	519·169	519·255
159		BM.81 / 64 O	157·0	G.T.S. ○ B.M. On S. coping of W. abutment of bridge No. 66, near telegraph post No. 29/7, and 30 chains W. of mile-post No. 29 from Jharsuguda.	501·936	502·019
160		BM.82 / 64 O	157·6	G.T.S. B.M. □ at Sambalpur Railway Station. Embedded in parapet of railway station well, level with top, 222 feet from home signal, 235 feet from N.W. corner of station building, and 83 feet from N.E. corner pillar supporting the tank.	512·698	512·783
	1/160	BM.83 / 64 O	160·4	Top of stone cap of boundary pillar outside W. corner of walled enclosure of jail, and 5 chains N. of crossing of roads from district court and city, Sambalpur.	494·697	494·779
	2/160	BM.84 / 64 O	160·7	G.T.S. Standard Bench Mark 1908. at Sambalpur. Surrounded by iron railing and close to meteorological observatory, 26 feet from centre of thermometer shed, 30 feet from B. M. No. c/160, and 12 feet from N.W. corner post of wire fencing enclosing observatory.	486·088	486·169

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/160	BM.85/64 O	160·3	Mahanadi River Gauge, Sambalpur. The height refers to the 30 feet 10 inches line cut on gauge on river bank, about 6 chains S. of Post and Telegraph Offices. *Note.*—The zero of gauge determined by P.W.D. is 30 feet 10 inches (30 83 feet) below this height.	480·238	480·318
b/160	BM 86/64 O	160·6	G.T.S. B.M. □ at District Court, Sambalpur. Embedded in front or N.E. side of Deputy Commissioner's kachahri, a few inches below ground level, 111 feet from N. corner of building, 14 feet N.W. of centre of door of Police Office, and 2 feet from front wall of building on which letters B.M. are cut above bench-mark.	488·925	489·006
c/160	BM.87/64 O	161·0	G.T.S. ○ B.M. On stone step at foot of ladder leading up to Anemometer on roof of Meteorological Observatory, Sambalpur.	484·399	484·479
d/160	BM 88/64 O	158·5	G.T.S. ○ B.M. at Panchkauri Ghat, Sambalpur. On middle one, or second from bottom, of steps of platform of Gadadhar temple on N. bank of Mahanadi river.	489·656	489·737
e/160	BM.89/64 O	160·4	G.T.S. ○ B.M. On W. end of middle one, or second from bottom, of steps leading to Jail Superintendent's office on N. side and within Jail entrance, Sambalpur.	499·583	499·666
161	BM.90/64 O	159·0	B.○M. at Panchkauri Ghat, Sambalpur. On rock *in situ* in mid-stream, 6 chains N. of toll-house on S. side of Mahanadi river.	463·077	463·154
162	BM.91/64 O	159·6	G.T.S. ○ B.M. at Panchkauri Ghat, Sambalpur. On rock *in situ* sloping towards river, 4 feet above ground, 330 feet S. of *Sarai* on S. bank of Mahanadi river and 84 feet W. of centre of old cart-track to river.	503·494	503·579
163	BM 92/64 O	161·1	G.T.S. ○ B.M. On top of mile-stone No. 3 from Sambalpur and No. 162 from Raipur.	539·531	539·622
164	BM.93/64 O	162·1	G.T.S. ○ B.M. On top of mile-stone No. 4 from Sambalpur and No. 161 from Raipur.	529·693	529·783
165	BM.94/64 O	163·1	G.T.S. ○ B.M. On top of mile-stone No. 5 from Sambalpur and No. 160 from Raipur.	541·991	542·083
166	BM.95/64 O	164·1	G.T.S. ○ B.M. On top of mile-stone No. 6 from Sambalpur and No. 159 from Raipur.	557·846	557·941
167	BM.96/64 O	165·1	G.T.S. ○ B.M. On top of mile-stone No. 7 from Sambalpur and No. 158 from Raipur.	541·967	542·060

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks			Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
168		BM.97 / 64 O	165·2	G.T.S. □ B.M. at Kalamati P.W.D. Rest House. Embedded close to E. side of steps of a well, and 9 inches below ground level; 6 chains due W. of rest house, 8 chains S.W. of mile-stone No. 7 from Sambalpur, 9 chains S. of Babuband tank, and 2 chains S. of high road from Sambalpur to Raipur. The letters B.M. are cut on face of well above bench-mark.	532·080	532·171
	1 / 168	BM.98 / 64 O	167·1	On the ⊙ on rock *in situ* of Lohar G. T. Survey Hill Station, lat. 21° 26′ 21″·76, long. 83° 53′ 11″·22. A secondary station of East Coast Series. (For full description *see* Synoptical Volume).	1266·847	1267·064
169		BM 99 / 64 O	177·1	G.T.S. □ B.M. at Saraspali Village. Embedded 5 inches below ground level, between chaukidars' huts and S. end of village, 22 feet S. of Police Chauki. The letters B.M. are engraved on stone embedded upright in masonry block 1 foot above ground level.	472·011	472·096
170		BM.100 / 64 O	181·6	G.T.S. ○ B.M. On N.W. extremity of a rocky rise, 5 chains N.E. of Potharla village, and 2 feet above ground level.	464·796	464·882
171		BM.101 / 64 O	189·0	G.T.S. ○ B.M. On rock *in situ*, on W. margin of road from Sambalpur to Sonpur, and 48 chains N. of Maina village.	449·069	449·154
172		BM.102 / 64 O	189·9	G.T.S. ○ B.M. On rock *in situ*, on W. margin of road from Sambalpur to Sonpur, and 20 chains S. of Maina village.	436·906	436·989
	a / 172	BM.103 / 64 O	192·4	G.T.S. □ B.M. at Brahmani Turum Village. Embedded at E. corner of pakka house in centre of village, close to temple of Jagannath, and 4 inches below ground level; 22 feet S.S.E. of centre of door of temple, and 14 feet S. of Garud-khamb. The letters B.M. are cut on wall of pakka house above bench-mark.	419·851	419·931
	b / 172	BM.104 / 64 O	199·4	G.T.S. □ B.M. at Binka. Embedded on N. side of Dhol-mandap in front of temple of Jagannath, and 1 foot below ground level; 8 feet from N.W. and 9 feet from N.E. corners of Dhol-mandap, and 4 feet from centre of N. face of mandap on which letters B.M. are cut.	404·868	404·945
173		BM.1 / 64 P	208·2	G.T.S. □ B.M. Embedded near S. bank of Ong river on N. margin of road from Binka to Sonpur, and a few inches below ground level; about 10 chains S.E. of edge of S. or right bank of river, where it is crossed by road, about ¼ mile S.W. of junction of Ong and Mahanadi rivers, and ½ mile N. of Torikoman village. The letters B.M. are cut on stone slab, 1 foot above ground level, adjoining N. side of bench-mark.	380·353	380·430
174		BM.2 / 64 P	213·0	○ B.M. On rock *in situ*, on S. margin of road from Binka to Sonpur, and about 8 chains W. of Panisali village.	370·110	370·185

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/174	BM.3/64 P	214·3	G.T.S. ○ B.M. at Dilbahalpur. On W. end of upper step at S. entrance to Rajmahal, 1 mile N.W. of Sonpur.	373·298	373·374
175	BM.4/64 P	214·9	G.T.S. □ B.M. at Sonpur. Embedded 4 inches below ground level, 4 chains from N.W. corner of wall enclosing the grave of Captain Russel's wife, and outside walled enclosure of Somnath Mahadeo's temple, 12 feet from S.W. corner, 18 feet from centre of back or W. entrance, and 3 feet from wall on which letters B.M. are cut above bench-mark.	369·362	369·438
176	BM.5/64 P	215·4	G.T.S. ○ B.M. On 2nd step from bottom at E. entrance to Hanuman's temple, Sonpur.	383·527	383·606
177	BM.6/64 P	215·9	G.T.S. ○ B.M. On N. end of 3rd step from bottom at E. entrance to Sureshwari Devi's temple, Sonpur, about 5 chains S. of road to Cuttack.	375·412	375·490
178	BM.7/64 P	216·4	G.T.S. ○ B.M. On S. end of stone step at E. entrance to Subanemeru Mahadeo's temple, Sonpur, on N. bank of Tel river.	364·331	364·406
179	BM.8/64 P	217·0	B.O.M. On top of mile-stone No. 152 from Cuttack.	361·469	361·544
180	BM.9/64 P	218·0	B.O.M. On top of mile-stone No. 151 from Cuttack.	359·536	359·611
181	BM 10/64 P	219·1	B.O.M. On top of mile-stone No. 150 from Cuttack.	352·805	352·878
182	BM.11/64 P	220·1	B.O.M. On top of mile-stone No. 149 from Cuttack.	360·685	360·760
183	BM.12/64 P	221·1	B.O.M. On top of mile-stone No. 148 from Cuttack.	366·030	366·106
184	BM.1/73 D	223·1	B.O.M. On top of mile-stone No. 146 from Cuttack.	351·675	351·748
185	BM.2/73 D	224·1	B.O.M. On top of mile-stone No. 145 from Cuttack.	327·662	327·730
186	BM.3/73 D	225·1	B.O.M. On top of mile-stone No. 144 from Cuttack.	343·337	343·408
187	BM.4/73 D	225·8	G.T.S. □ B.M. at Baghnadi Travellers' Bungalow. Embedded near S.W. corner, 8 inches below ground level, 2 chains E. of B.M. No. a/187, 19 feet from S.W. and 49 feet from S.E. corners of building, and 33 feet from centre of middle door of front or S. verandah.	338·918	338·989

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/187	BM.5/73 D	225·9	Baghnadi Railway Survey Bench-Mark. Top of stone embedded 1 chain W. of out-houses of Baghnadi travellers' bungalow.	339·268	339·339
188	BM.6/73 D	226·2	B.OM. On top of mile-stone No. 143 from Cuttack.	358·195	358·270
189	BM.7/73 D	227·1	B.OM. On top of mile-stone No. 142 from Cuttack.	353·325	353·398
190	BM.8/73 D	228·3	B.OM. On top of mile-stone No. 141 from Cuttack.	359·004	359·079
191	BM.9/73 D	229·3	B.OM. On top of mile-stone No. 140 from Cuttack.	347·026	347·098
192	BM.10/73 D	230·4	B.OM. On top of mile-stone No. 139 from Cuttack.	346·425	346·497
193	BM.11/73 D	231·4	B.OM. On top of mile-stone No. 138 from Cuttack.	338·274	338·344
194	BM.12/73 D	233·7	B.OM. On top of mile-stone No. 136 from Cuttack.	361·244	361·319
195	BM.13/73 D	234·6	B.OM. On top of mile-stone No. 135 from Cuttack.	346·153	346·224
196	BM.14/73 D	235·6	B.OM. On top of mile-stone No. 134 from Cuttack.	364·604	364·679
197	BM.15/73 D	235·7	G.T.S. □ B.M. at Teliband Travellers' Bungalow. Embedded on E. side, 8 inches below ground level, 20 feet from S.E. and 35 feet from N.E. corners of building. The letters B.M. are cut on stone, 2 feet above ground level, embedded in masonry adjoining N. side of bench-mark.	363·965	364·040
198	BM.16/73 D	236·8	B.OM. On top of mile-stone No. 133 from Cuttack.	366·249	366·324
199	BM.17/73 D	237·7	B.OM. On top of mile-stone No. 132 from Cuttack.	346·816	346·887
200	BM.18/73 D	239·7	B.OM. On top of mile-stone No. 130 from Cuttack.	319·478	319·543
201	BM.19/73 D	240·7	B.OM. On top of mile-stone No. 129 from Cuttack.	311·012	311·076
202	BM.20/73 D	241·6	B.OM. On top of mile-stone No. 128 from Cuttack.	315·051	315·116
203	BM.21/73 D	242·6	B.OM. On top of mile-stone No. 127 from Cuttack.	318·642	318·708

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
204	BM.22 / 73 D	243·8	B.⊙M. On top of mile-stone No. 126 from Cuttack.	293·229	293·289
a / 204	BM.23 / 73 D	244·6	G.T.S. □ B.M. at Bod. Embedded outside walled enclosure of Mahadeo's temple, opposite travellers' bungalow, and 10 inches below ground level; 42 feet from E. corner of enclosure, 14 feet N. of centre of entrance, and 2 feet from wall. The letters B.M. are cut on face of wall above bench-mark.	299·076	299·138
205	BM.24 / 73 D	244·7	B.⊙M. On top of mile-stone No. 125 from Cuttack.	293·735	293·796
206	BM 25 / 73 D	245·9	○ B.M. On top of mile-stone No. 124 from Cuttack.	286·298	286·357
207	BM.26 / 73 D	246·9	B.⊙M. On top of mile-stone No. 123 from Cuttack.	280·586	280·644
208	BM.27 / 73 D	247·8	B.⊙M. On top of mile-stone No. 122 from Cuttack.	283·564	283·623
209	BM.28 / 73 D	248·9	○ B.M. On top of mile-stone No. 121 from Cuttack.	282·732	282·792
210	BM.29 / 73 D	249·9	B.⊙M. On top of mile-stone No. 120 from Cuttack.	280·190	280·249
211	BM 30 / 73 D	250·7	B.⊙M. On top of mile-stone No. 119 from Cuttack.	272·153	272·211
212	BM.31 / 73 D	251·6	B.⊙M. On top of mile-stone No. 118 from Cuttack.	269·104	269·161
213	BM 32 / 73 D	252·3	G.T.S. □ B.M. at Karadi Travellers' Bungalow. Embedded 6 inches below ground level, 11 feet from S.W. and 45 feet from S.E. corners of building, 28 feet from centre of middle door of S. or front verandah, and 8 feet W. of W. pillar. The letters B.M. are cut on W. side of floor of front verandah, 7 feet E. of bench-mark.	272·038	272·096
214	BM.33 / 73 D	252·6	B.⊙M. On top of mile-stone No. 117 from Cuttack.	261·914	261·970
215	BM.34 / 73 D	253·6	○ B.M. On top of mile-stone No. 116 from Cuttack.	264·193	264·249
216	BM.35 / 73 D	256·6	B.⊙M. On top of mile-stone No. 113 from Cuttack.	260·709	260·765
217	BM.36 / 73 D	257·6	B.⊙M. On top of mile-stone No. 112 from Cuttack.	250·525	250·578
218	BM.37 / 73 D	258·6	B.⊙M. On top of mile-stone No. 111 from Cuttack.	254·884	254·938

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks			Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
219		BM.38 / 73 D	259·7	B.○M. On top of mile-stone No. 110 from Cuttack.	246·919	246·972
220		BM.39 / 73 D	260·9	○ B.M. On top of mile-stone No. 109 from Cuttack.	235·699	235·750
	a / 220	BM.40 / 73 D	261·5	G.T.S. □ B.M. at Dholpur Travellers' Bungalow. Embedded 10 inches below ground level, 13 feet E. of E. corner and 34 feet from S. corner of building, 29 feet from centre of middle door of front verandah, and 11 feet from E. pillar. The letters B.M. are cut on E. side of floor of front verandah, 9 feet W. of bench-mark.	258·314	258·369
221		BM.41 / 73 D	262·1	B.○M. On top of mile-stone No. 108 from Cuttack.	237·316	237·367
222		BM.42 / 73 D	263·1	B.○M. On top of mile-stone No. 107 from Cuttack.	239·446	239·497
223		BM.43 / 73 D	264·1	B.○M. On top of mile-stone No. 106 from Cuttack.	235·691	235·742
224		BM.44 / 73 D	266·1	B.○M. On top of mile-stone No. 104 from Cuttack.	256·160	256·216
225		BM.45 / 73 D	267·2	B.○M. On top of mile-stone No. 103 from Cuttack.	301·024	301·089
226		BM.46 / 73 D	270·2	B.○M. On top of mile-stone No. 100 from Cuttack.	243·140	243·193
227		BM.47 / 73 D	271·2	B.○M. On top of mile-stone No. 99 from Cuttack.	233·750	233·801
228		BM.48 / 73 D	271·7	G.T.S. □ B.M. at Harbhanga Travellers' Bungalow. Embedded 5 inches below ground level, 16 feet from E. pillar of front verandah, 29 feet from B.M. No. a/228, 17 and 36 feet respectively from E. and S. corners of building, and 34 feet from centre of middle door of front verandah.	243·542	243·596
	a / 228	BM.49 / 73 D	271·7	B.M.⊳□ on 22nd June 1890 On stone embedded in N. or front verandah of Harbhanga travellers' bungalow, 6 feet to left or E. of central door. (P.W.D. bench-mark).	246·483	246·537
229		BM.50 / 73 D	272·3	B.○M. On top of mile-stone No. 98 from Cuttack.	237·786	237·838
230		BM.51 / 73 D	273·4	B.○M. On top of mile-stone No. 97 from Cuttack.	226·198	226·248
231		BM.52 / 73 D	274·4	B.○M. On top of mile-stone No. 96 from Cuttack.	235·420	235·472

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
232	BM 53 / 73 D	275·6	B.O.M. On top of mile-stone No. 95 from Cuttack.	235·975	236·027
233	BM 54 / 73 D	276·6	B.O.M. On top of mile-stone No. 94 from Cuttack.	216·492	216·540
234	BM.55 / 73 D	277·6	B.O.M. On top of mile-stone No. 93 from Cuttack.	215·875	215·923
235	BM 56 / 73 D	278·6	B.O.M. On top of mile-stone No. 92 from Cuttack.	243·319	243·372
236	BM 57 / 73 D	279·6	B.O.M. On top of mile-stone No. 91 from Cuttack.	230·046	230·097
237	BM.58 / 73 D	280·6	B.O.M. On top of mile-stone No. 90 from Cuttack.	248·074	248·129
238	BM 59 / 73 D	280·8	G.T.S. □ B.M. at Dimiria Travellers' Bungalow. Embedded 10 inches below ground level, 21 feet S. of S.W. corner and 42 feet from S E. corner of building, 10 feet from W. pillar of S. or front verandah, and 27 feet from centre of middle door.	232·522	232·573
239	BM.60 / 73 D	281·7	B.O.M. On top of mile-stone No. 89 from Cuttack.	222·787	222·836
240	BM 61 / 73 D	282·7	B.O.M. On top of mile-stone No. 88 from Cuttack.	246·916	246·971
241	BM.62 / 73 D	283·7	B.O.M. On top of mile-stone No. 87 from Cuttack.	236·249	236·301
242	BM 63 / 73 D	284·3	□ ⋁ G.T.S. B.M. On top of stone, embedded on N.E margin of road to Cuttack, 16 chains N.W. of boundary pillar between Bod and Daspala—Tributary States of Orissa, and 35 chains N W. of mile-stone No. 86 from Cuttack. (Railway Survey bench-mark).	218·385	218·434
243	BM.64 / 73 D	284·5	G.T S. ○ B.M. On top of boundary pillar between Bod and Daspala—Tributary States of Orissa, on N. margin of road, about ¼ mile N.W. of mile-stone No. 86 from Cuttack.	213·006	213·053
244	BM 65 / 73 D	284·8	B.O.M. On top of mile-stone No. 86 from Cuttack.	222·969	223·019
245	BM.66 / 73 D	285·8	B.O.M. On top of mile-stone No. 85 from Cuttack.	208·952	208·999
246	BM 67 / 73 D	286·8	B.O.M. On top of mile-stone No. 84 from Cuttack.	225·581	225·632
247	BM.68 / 73 D	287·8	B.O.M. On top of mile-stone No. 83 from Cuttack.	220·407	220·456

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
248	BM.69 / 73 D	288·9	B.O.M. On top of mile-stone No. 82 from Cuttack.	233·317	233·369
249	BM.70 / 73 D	289·3	G.T.S. □ B.M. at Kuturi Travellers' Bungalow. Embedded 8 inches below ground level, 12 feet E. of N. corner and 33 feet from E. corner of building, and 24 feet from centre of door of back or N.E. verandah.	224·481	224·531
250	BM.71 / 73 D	290·0	B.O.M. On top of mile-stone No. 81 from Cuttack.	203·073	203·119
251	BM.72 / 73 D	291·0	B.O.M. On top of mile-stone No. 80 from Cuttack.	231·352	231·404
252	BM.73 / 73 D	292·0	B.O.M. On top of mile-stone No. 79 from Cuttack.	210·101	210·148
a 252	BM 74 / 73 D	293·1	[R. 13] On top of stone, embedded on N. margin of road, 3 chains W. of mile-stone No. 78 from Cuttack. (Railway Survey bench-mark).	213·389	213·437
253	BM.75 / 73 D	293·5	○ B.M. On rock *in situ*, on S. margin of road, 33 chains E. of mile-stone No. 78 from Cuttack.	223·563	223·614
254	BM.76 / 73 D	293·6	[R 3] On top of stone, embedded on N. margin of road, 41 chains W. of mile-stone No 77 from Cuttack. (Railway Survey bench-mark).	226·114	226·165
255	BM.77 / 73 D	294·1	B.M.O On top of mile-stone No. 77 from Cuttack.	196·190	196·234
256	BM.78 / 73 D	296·1	O B.M. On top of mile-stone No. 75 from Cuttack.	200·923	200·969
257	BM 79 / 73 D	297·1	B.O.M. On top of mile-stone No. 74 from Cuttack.	189·511	189·554
258	BM 80 / 73 D	298·2	B.O.M. On top of mile-stone No. 73 from Cuttack.	192·768	192·812
259	BM.81 / 73 D	299·2	B.O.M. On top of mile-stone No. 72 from Cuttack.	183·046	183·088
260	BM 82 / 73 D	299·4	G.T.S. □ B.M. at Chamundia Travellers' Bungalow. Embedded on E. side, 6 inches below ground level, 32 feet from N.E. and 13 feet from S.E. corners of building, 14 feet from E. pillar of front or S. verandah, and 16 feet from centre of E. door.	193·696	193·740
261	BM.83 / 73 D	300·2	B.O.M. On top of mile-stone No. 71 from Cuttack.	184·673	184·715
262	BM.84 / 73 D	302·2	B.O.M. On top of mile-stone No. 69 from Cuttack.	181·782	181·824

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
263	BM.85 / 73 D	303·2	B.O.M. On top of mile-stone No. 68 from Cuttack.	184·850	184·892
264	BM 94 / 73 H	304·2	B.O.M. On top of mile-stone No. 67 from Cuttack.	182·985	183·027
265	BM 95 / 73 H	305·2	B.O.M. On top of mile-stone No. 66 from Cuttack.	175·409	175·449
266	BM 96 / 73 H	306·3	B.O.M. On top of mile-stone No. 65 from Cuttack.	207·411	207·459
267	BM.97 / 73 H	307·3	B.O.M. On top of mile-stone No. 64 from Cuttack.	203·921	203·968
268	BM 98 / 73 H	308·3	B.O.M. On top of mile-stone No. 63 from Cuttack.	233·316	233·370
269	BM 99 / 73 H	308·5	G.T.S. □ B.M. at Belpoda Travellers' Bungalow. Embedded 5 inches below ground level, 14 feet E. of S.E. corner of basement of building, 32 feet from centre of door of S. verandah, 16 feet from S.E. corner pillar, and 49 feet from N.E. corner of N.E. bath-room.	243·834	243·891
270	BM.100 / 73 H	309·3	B.O.M. On top of mile-stone No. 62 from Cuttack.	201·131	201·178
271	BM.101 / 73 H	310·3	B.O.M. On top of mile-stone No. 61 from Cuttack.	189·686	189·730
272	BM.102 / 73 H	311·3	B.O.M. On top of mile-stone No. 60 from Cuttack.	194·630	194·675
273	BM.103 / 73 H	312·3	B.O.M. On top of mile-stone No. 59 from Cuttack.	194·143	194·188
274	BM 104 / 73 H	312·4	○ G.T.S. B.M. On top of pillar, on boundary between Daspala and Khandarpara—Tributary States of Orissa, on N. margin of road, and 10 chains E. of mile-stone No. 59 from Cuttack.	211·191	211·240
275	BM.105 / 73 H	313·3	B.O.M. On top of mile-stone No. 58 from Cuttack.	167·388	167·427
276	BM.106 / 73 H	314·3	B.O.M. On top of mile-stone No. 57 from Cuttack.	161·958	161·996
277	BM.107 / 73 H	315·3	B.O.M. On top of mile-stone No. 56 from Cuttack.	166·580	166·619
278	BM.108 / 73 H	317·2	B.O.M. On top of mile-stone No. 54 from Cuttack.	157·158	157·195
279	BM.109 / 73 H	317·5	○ B.M. On rock *in situ*, on N. margin of road, 28 chains E. of mile-stone No. 54 from Cuttack.	165·555	165·594

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
280	BM.110 / 73 H	318·3	B.O.M. On top of mile-stone No. 53 from Cuttack.	153·352	153·388
281	BM.111 / 73 H	319·3	B.O.M. On top of mile-stone No. 52 from Cuttack.	154·102	154·138
282	BM.112 / 73 H	319·4	G.T.S. ○ B.M. On E. coping of Adarisau-ka-kua, a masonry well to W. of Jatrapara bazar and about 30 chains W. of Kantilo travellers' bungalow.	155·274	155·310
a / 282	BM.113 / 73 H	319·9	G.T.S. □ B.M. at Kantilo Travellers' Bungalow. Embedded 7 inches below ground level, 12 feet from E. corner of building, 36 feet from S. corner of basement, and 26 feet from centre of E. door.	154·846	154·882
283	BM.114 / 73 H	320·1	B.O.M. On top of mile-stone No. 51 from Cuttack.	151·072	151·108
284	BM.115 / 73 H	321·0	B.O.M. On top of mile-stone No. 50 from Cuttack.	157·504	157·541
285	BM.116 / 73 H	322·0	B.O.M. On top of mile-stone No. 49 from Cuttack.	160·812	160·850
286	BM.117 / 73 H	323·0	B.O.M. On top of mile-stone No. 48 from Cuttack.	161·835	161·873
a / 286	BM.118 / 73 H	323·4	G.T.S. ○ B.M. On platform coping at S. entrance to Jaleshwar Mahadeo's temple, on tank band, close to Kendupali village.	184·524	184·568
287	BM.119 / 73 H	324·0	B.O.M. On top of mile-stone No. 47 from Cuttack.	261·618	261·680
288	BM.120 / 73 H	324·5	B.O.M. On top of mile-stone No. 27 from Khurda, at junction of roads from Cuttack and Khurda to Sambalpur.	265·959	266·022
289	BM.121 / 73 H	325·0	B.O.M. On top of mile-stone No. 46 from Cuttack.	221·510	221·563
290	BM.122 / 73 H	326·0	B.O.M. On top of mile-stone No. 45 from Cuttack.	176·198	176·240
291	BM.123 / 73 H	327·0	B.O.M. On top of mile-stone No. 44 from Cuttack.	148·361	148·396
292	BM.124 / 73 H	328·0	B.O.M. On top of mile-stone No. 43 from Cuttack.	137·370	137·402
293	BM 125 / 73 H	328·7	G.T.S. □ B.M. at Padmabati Village. Embedded 10 inches below ground level, between S.E. corner and steps of Dhol-mandap of Mahadeo's (Bankeshwar) temple, on E. embankment of Pokari tank, and close to S. side of village; 67 feet from E. door of temple, 4 feet from S.E. corner of Dhol-mandap, and 3 feet from E. side of steps of *mandap*. The letters B.M. are cut on S. face of *mandap* above bench-mark.	138·826	138·859

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
294	BM.126 / 73 H	329·3	B.O.M. On top of mile-stone No. 42 from Cuttack.	140·242	140·275
295	BM.127 / 73 H	331·3	B.O.M. On top of mile-stone No. 40 from Cuttack.	126·421	126·451
296	BM 128 / 73 H	332·3	B.O.M. On top of mile-stone No. 39 from Cuttack.	154·008	154·044
a / 296	BM 129 / 73 H	333·2	G.T.S. ○ B.M. at Baideswar Travellers' Bungalow. On rock *in situ*, one of a cluster of three rocks, 1 chain E. of E. corner of building.	154·452	154·488
297	BM.130 / 73 H	333·3	B.O.M. On top of mile-stone No. 38 from Cuttack.	132·293	132·324
298	BM 131 / 73 H	334·3	B.O.M. On top of mile-stone No. 37 from Cuttack.	128·774	128·804
299	BM 132 / 73 H	335·3	B.O.M. On top of mile-stone No. 36 from Cuttack.	124·606	124·636
300	BM.133 / 73 H	336·3	B.O.M. On top of mile-stone No. 35 from Cuttack.	121·581	121·610
301	BM 134 / 73 H	337·4	B.O.M. On top of mile-stone No. 34 from Cuttack.	126·199	126·229
302	BM.135 / 73 H	338·4	B.O.M. On top of mile-stone No. 33 from Cuttack.	125·533	125·563
303	BM.136 / 73 H	339·4	B.O.M. On top of mile-stone No. 32 from Cuttack.	122·000	122·029
304	BM.137 / 73 H	340·4	B.O.M. On top of mile-stone No. 31 from Cuttack.	117·655	117·683
305	BM 138 / 73 H	342·3	B.O.M. On top of mile-stone No. 29 from Cuttack.	117·674	117·702
306	BM.139 / 73 H	343·4	B.O.M. On top of mile-stone No. 28 from Cuttack.	117·497	117·524
307	BM.140 / 73 H	343·7	G.T.S. □ B.M. at Charchi-ka-Banki Travellers' Bungalow. Embedded 8 inches below ground level, 35 feet from centre of door of S. verandah, 18 feet from S.W. corner of building on which letters B.M. are cut, and 48 feet from S.E. corner.	121·448	121·476
308	BM.141 / 73 H	345·6	B.O.M. On top of mile-stone No. 26 from Cuttack.	116·646	116·673
309	BM.142 / 73 H	346·6	B.O.M. On top of mile-stone No. 25 from Cuttack.	108·646	108·672

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
310	BM.143 / 73 H	347·6	B.O.M. On top of mile-stone No. 24 from Cuttack.	110·858	110·884
311	BM.144 / 73 H	348·6	B.O.M. On top of mile-stone No. 23 from Cuttack.	108·971	108·996
312	BM.145 / 73 H	348·9	G.T.S. ○ B.M. at Durga Devi's Temple. On S. corner of basement plinth of southernmost one of three temples, on a swell of ground, near Ghasiput village, and 27 chains N.E. of mile-stone No. 23 from Cuttack.	151·410	151·445
313	BM.146 / 73 H	349·6	B.O.M. On top of mile-stone No. 22 from Cuttack.	106·574	106·599
a / 313	BM.147 / 73 H	349·9	G.T.S. ○ B.M. On E. cap of N.E. wing wall of bridge over Kanjapara nala, 27 chains N.E. of mile-stone No. 22 from Cuttack.	121·014	121·042
314	BM.148 / 73 H	350·6	B.O.M. On top of mile-stone No. 21 from Cuttack.	106·545	106·570
315	BM.149 / 73 H	351·6	B.O.M. On top of mile-stone No. 20 from Cuttack.	103·597	103·621
316	BM.150 / 73 H	352·2	G.T.S. ○ B.M. On N. parapet of culvert, 48 chains N.E. of mile-stone No. 20 from Cuttack.	101·945	101·969
317	BM.151 / 73 H	352·6	B.O.M. On top of mile-stone No. 19 from Cuttack.	100·677	100·700
a / 317	BM.152 / 73 H	352·8	G.T.S. ○ B.M. On centre of E. parapet of culvert, on branch road to Pathpur travellers' bungalow.	98·447	98·470
b / 317	BM.153 / 73 H	353·0	G.T.S. □ B.M. at Pathpur Travellers' Bungalow. Embedded 8 inches below ground level, 34 feet from S.W. and 16 feet from N.W. corners of building, and 15 feet from W. pillar of front verandah.	111·404	111·430
318	BM.154 / 73 H	353·6	B.O.M. On top of mile-stone No. 18 from Cuttack.	100·243	100·266
319	BM.155 / 73 H	354·6	B.O.M. On top of mile-stone No. 17 from Cuttack.	97·714	97·737
320	BM.156 / 73 H	355·6	B.O.M. On top of mile-stone No. 16 from Cuttack.	93·325	93·347
a / 320	BM.157 / 73 H	355·9	G.T.S. ○ B.M. On centre step of E. flight leading into Ramchandi Devi's temple, on S. bank of Mahanadi river, ½ mile E. of mile-stone No. 16 from Cuttack.	102·170	102·194

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
321	BM 158 / 73 H	356·6	B.O.M. On top of mile-stone No. 15 from Cuttack.	96·721	96·744
322	BM 159 / 73 H	357·3	G.T.S. ○ B.M. On centre of S stone parapet of culvert, ¼ mile W. of mile-stone No. 14 from Cuttack.	94·772	94·794
323	BM 160 / 73 H	357·6	B.O.M. On top of mile-stone No. 14 from Cuttack.	97·132	97·155
324	BM 161 / 73 H	358·6	B.O.M. On top of mile-stone No. 13 from Cuttack.	110·916	110·942
325	BM 162 / 73 H	359·6	B.O.M. On top of mile-stone No. 12 from Cuttack.	99·078	99·101
326	BM 163 / 73 H	359·7	G.T.S. ○ B.M. On N. cut-water of pier of bridge, 9 chains E. of mile-stone No. 12 from Cuttack.	101·261	101·284
327	BM 164 / 73 H	360·6	B.O.M. On top of mile-stone No. 11 from Cuttack.	106·491	106·516
328	BM 165 / 73 H	360·8	G.T.S. □ B.M. at Govindpur Travellers' Bungalow. Embedded 6 inches below ground level, 23 feet from W. and 38 feet from S. corners of building.	107·386	107·411
329	BM 166 / 73 H	361·7	B.O.M. On top of mile-stone No. 10 from Cuttack.	144·448	144·481
330	BM 167 / 73 H	362·7	B.O.M. On top of mile-stone No. 9 from Cuttack.	103·048	103·072
331	BM 168 / 73 H	363·1	G.T.S. ○ B.M. On N.W. parapet of road culvert close to E. side of East Coast Railway embankment, between villages of Godishai and Barsinga, and 33 chains E. of mile-stone No. 9 from Cuttack.	81·203	81·222
332	BM 169 / 73 H	363·4	B.O.M. On top of mile-stone No. 0 at junction of roads from Cuttack and Naraj to Sambalpur.	80·953	80·972
333	BM 170 / 73 H	363·7	B.O.M. On top of mile-stone No. 8 from Cuttack.	78·919	78·937
334	BM 171 / 73 H	364·2	G.T.S. ○ B.M. On S. parapet of culvert, 36 chains W. of mile-stone No. 7 from Cuttack.	82·399	82·418
335	BM 172 / 73 H	364·7	B.O.M. On top of mile-stone No. 7 from Cuttack.	81·820	81·839
336	BM 173 / 73 H	366·5	B.O.M. On top of mile-stone No. 5 from Cuttack.	78·095	78·113

Main-Line 40. (Bilaspur to Cuttack).

Designation of Bench-marks		Distance from Bilaspur	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/336	BM.174/73 H	368·0	G.T.S. ○ B.M. On S.W. foot of *Tulas* pillar, near pakka well of Kajipatnam village.	78·689	78·707
337	BM.3/73 H	369·0	G.T.S. ○ B.M. at Purighat Well, Cuttack. On coping at S.E. corner of well on N. or Cuttack bank of Kathjori river, close to plate on which is engraved "Mokandi Barang, year 1298, A.D. 1891".	81·305	81·324
338	BM.2/73 H	369·8	G.T.S. ○ B.M. at Collector's Kachahri, Cuttack. On top step of main entrance to kachahri, between passage to Joint Magistrate's Court and Nazir's Office.	83·667	83·686
339	BM.1/73 H	370·6	G.T.S. □ B.M. at Judge's Court, Cuttack. Embedded near S.E. face of Gumti (Police sentry box), between Judge's Court and Municipal Dispensary, 8 inches below level of ground, 107 feet S. of S.W. corner and 108 feet from S.E. corner of Jail, 254 feet E. of E. door of Judge's Court, 158 feet from S.W. corner of Municipal Dispensary, and 6 feet S.E. of letters B.M. cut on face of Gumti.	74·128	74·145
a/339	BM.175/73 H	372·2	G.T.S. ○ B.M. Near N. side of doorway, on centre or second step from bottom at W. entrance to Church, Cuttack.	84·102	84·121
b/339	BM 176/73 H	372·4	B.O.M. at Fort, Cuttack. On S.W. stone pillar at entrance to racket court enclosure.	83·004	83·023
1/339	BM.177/73 H	372·6	On mark-stone on top of circular pillar of Cuttack G. T. Survey Hill Station, lat. 20° 29′ 0″·68, long. 85° 52′ 1″·43. A principal station of East Coast Series. (For full description *see* Synoptical Volume).	133·197	133·227

Main-Line 41. (Cuttack to Kendrapara).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
1	BM.1 / 73 H	0·0	G.T.S. □ B.M. at Judge's Court, Cuttack. Embedded near S.E. face of Gumti (Police sentry box), between Judge's Court and Municipal Dispensary, 8 inches below level of ground, 107 feet S. of S.W. corner and 108 feet from S.E. corner of Jail, 254 feet E. of E. door of Judge's Court, 158 feet from S W. corner of Municipal Dispensary, and 6 feet S.E. of letters B.M. cut on face of Gumti.	74·128	74·145
2	BM.178 / 73 H	0·8	G.T.S. ○ B.M. at Sadar Post Office, Cuttack. On stone pavement of front or W. verandah, 11 feet from S. end, and 1 foot from wall.	79·807	79·825
3	BM 179 / 73 H	1·0	B ○ M. On top of stone, embedded upright in ground, having the number 12 cut on its face to indicate the number of well near which it stands, 14 feet N. of road forming N. boundary of Native Infantry Lines, Cuttack.	78·555	78·573
4	BM.180 / 73 H	1·2	B.○M G T.S. at Travellers' Bungalow, Cuttack. On stone slab on W. side of W. entrance to front verandah.	83·342	83·361
a/4	BM 181 / 73 H	1·9	B.M. 123·05 ○ On plinth at S.E. side of pillar No 11, Cuttack, on N. margin of road opposite Mastan Shah Aulia-ka-dargah, and 7 chains W of Government Telegraph Office gateway. (P.W.D bench-mark).	79·747	79·765
5	BM 182 / 73 H	2·8	B.○M. On top of 4th mile-stone just outside workshops at Jobra.	78·038	78·056
6	BM 183 / 73 H	2·9	G T.S. ○ B.M. On a smooth stone of masonry on W. side of head-lock of Taldunda canal at Jobra, near W. hinge of N. gate.	77·415	77·433
7	BM 184 / 73 H	3·9	G T S. ○ B.M. at Mahanadi Weir, Cuttack. On 1st step of N. flank wall of centre sluices.	59·395	59·408
a/7	BM 185 / 73 H	4·4	69 feet 8 inches graduation of river gauge painted on N. revetment wall of Mahanadi weir, Cuttack.	69·169	69·185
8	BM 186 / 73 H	5·8	∧ B □ M. 76·54 On a stone of masonry on S. side of Kendrapara canal head-lock, Jagatpur, 13 feet W. of western gate hinge. (Canal bench-mark).	75·846	75·863
a/8	BM.187 / 73 H	7·3	G T S. B [↑] M. H.F.L. 25-7-92 at High Flood Level Drain. Embedded in W. wing wall of drain on S. side of canal, 1 chain from furlong-stone No. ⅛, and 1 mile from Jagatpur. (Canal bench-mark).	63·368	63·382
9	BM 188 / 73 H	8·1	4 feet above G T.S. H F ○ L. B.M. 1892. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 2 from Jagatpur. (Canal bench-mark).	74·734	74·751

Main-Line 41. (Cuttack to Kendrapara).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks		Corrected Elevation	
Geodetic	Topographic				Dynamic	Orthometric
		miles			*feet*	*feet*
10	BM.189 / 73 H	8·9	B.○M.	On top of Kendrapara canal furlong-stone No. 2¾ from Jagatpur.	70·059	70·075
11	BM.190 / 73 H	9·1	○ B.M.	On top of Kendrapara canal mile-stone No. 3 from Jagatpur.	71·137	71·153
12	BM.191 / 73 H	10·1	○ G.T.S. B.M.	On top of Kendrapara canal mile-stone No. 4 from Jagatpur.	73·598	73·615
13	BM 192 / 73 H	11·1	4 feet above H.F L. ○ G.T.S. B.M. 1892.	at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 5 from Jagatpur. (Canal bench-mark).	69·606	69·622
14	BM.1 / 73 L	12·1	○ G.T.S. B.M.	On top of Kendrapara canal mile-stone No. 6 from Jagatpur.	70·678	70·694
15	BM.2 / 73 L	12·2	G.T.S. ○ B.M.	On coping of masonry on S. side of Barabari lock No. 2, 3 feet E. of western gate hinge.	65·138	65·153
16	BM.3 / 73 L	12·2	G.T.S. □ B.M.	Embedded in a masonry block resting on E. wing wall, on S. side of Barabari lock No. 2, 1 inch below top of pillar, 17 and 36 feet respectively from S. and N. ends of E. railing of bridge over canal.	68·223	68·239
17	BM.4 / 73 L	13·2	○ G.T.S. B.M.	On top of Kendrapara canal mile-stone No. 7 from Jagatpur.	62·412	62·426
18	BM 5 / 73 L	14·2	○ G.T.S. B.M.	On top of Kendrapara canal mile-stone No. 8 from Jagatpur.	59·005	59·019
19	BM.6 / 73 L	15·2	○ G.T.S. B.M.	On top of Kendrapara canal mile-stone No. 9 from Jagatpur.	58·287	58·300
20	BM.7 / 73 L	16·1	G.T.S.○B.M.	On top of Kendrapara canal mile-stone No. 10 from Jagatpur.	62·833	62·847
21	BM.8 / 73 L	17·2	G.T.S.○B.M.	On top of Kendrapara canal mile-stone No. 11 from Jagatpur.	53·693	53·705
22	BM 9 / 73 L	18·2	G.T.S ○B.M.	On top of Kendrapara canal mile-stone No. 12 from Jagatpur.	48·736	48·747
23	BM.10 / 73 L	19·2	4 feet above ○ H.F.L. G.T.S B.M. 1892.	at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 13 from Jagatpur. (Canal bench-mark).	56·510	56·523
24	BM.11 / 73 L	20·2	4 feet above ○ H.F L. G.T.S. B.M. 1892.	at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 14 from Jagatpur. (Canal bench-mark).	54·968	54·981

Main-Line 41. (Cuttack to Kendrapara).

Designation of Bench-marks			Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
	Geodetic	Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
	a/24	BM.12/73 L	20·9	G.T.S. B.M. ○ 45·30 On top of a block of stone embedded in pillar, 50 feet S. of S. bank of Kendrapara canal, 158 feet E. of a sluice, and 23 chains W. of mile-stone No. 15 from Jagatpur. (Canal bench-mark).	45·326	45·336
25		BM.13/73 L	21·2	4 feet above ○ H F L. G.T S B.M. 1892. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 15 from Jagatpur. (Canal bench-mark).	53·519	53·531
	a/25	BM.14/73 L	21·7	G.T.S. ○ B.M. at Kendupatna. On top of N. corner of enclosure containing rain-gauge, in compound of P.W.D. Sub-divisional Officer's bungalow.	58·075	58·088
	b/25	BM 15/73 L	21·7	G T.S. □ B M. at Kendupatna. Embedded 4 inches below ground level, in compound of P.W.D. Sub-divisional Officer's bungalow, 139 feet from S.W corner of building, 22 feet from N W and S.W. corners of rain-gauge platform, 30 feet W. of rain-gauge, and 43 feet N. of N. bank of Chitartola river.	54·064	54·076
26		BM.16/73 L	22·0	G.T.S. ○ B M. On coping of masonry on N. side of Kendupatna lock No. 3, 5 feet E. of western gate hinge. (Canal bench-mark).	52·971	52·983
27		BM.17/73 L	22·2	4 feet above H F L. G.T.S.○B.M 1892 at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 16 from Jagatpur. (Canal bench-mark).	52·443	52·455
28		BM.18/73 L	23·2	4 feet above H.F.L. ○ 1892 G.T S.B M. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, 2 chains E of mile-stone No. 17 from Jagatpur. (Canal bench-mark).	51·472	51·484
29		BM.19/73 L	24·1	4 feet above H F.L G.T.S.○B.M 1892 at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, 6 chains W. of mile-stone No. 18 from Jagatpur. (Canal bench-mark).	50·328	50·339
30		BM.20/73 L	25·1	4 feet above H.F.L. G.T.S.○B.M. 1892 at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 19 from Jagatpur. (Canal bench-mark).	48·614	48·625
31		BM 21/73 L	26·1	4 feet above ○ H F.L. G T.S. B.M. 1892. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 20 from Jagatpur. (Canal bench-mark).	46·856	46·867

Main-Line 41. (Cuttack to Kendrapara).

Designation of Bench-marks			Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
32		BM.22 / 73 L	27·1	4 feet above ○ H.F.L. G.T.S. B.M. 1892. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 21 from Jagatpur. (Canal bench-mark).	45·049	45·059
33		BM.23 / 73 L	28·1	4 feet above ○ H.F.L. G.T.S. B.M. 1892. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 22 from Jagatpur. (Canal bench-mark).	43·145	43·155
34		BM.24 / 73 L	28·5	○ G.T.S. B.M. On coping of masonry on S. side of Lokanathpur lock No. 4, 3 feet E. of eastern gate hinge. (Canal bench-mark).	39·657	39·666
35		BM.25 / 73 L	29·2	4 feet above H.F.L. ○ 1892 G.T.S. B.M. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 23 from Jagatpur. (Canal bench-mark).	41·496	41·505
	a / 35	BM.26 / 73 L	30·2	4 feet above H.F.L. ○ 1892 G.T S. B.M. at High Flood Level Pillar. Embedded 1 chain S. of S. bank of Kendrapara canal, at mile-stone No. 24 from Jagatpur. (Canal bench-mark).	39·826	39·835
36		BM.27 / 73 L	31·2	4 feet above H.F L. ○ 1892 G.T.S. B.M. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 25 from Jagatpur. (Canal bench-mark).	38·973	38·982
37		BM.28 / 73 L	32·2	4 feet above H.F.L. ○ 1892 G.T.S. B.M. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 26 from Jagatpur. (Canal bench-mark).	37·500	37·509
38		BM.29 / 73 L	32·4	|○| G.T.S. B.M. On coping of masonry on S. side of Danpur lock No. 5, 6 feet E. of eastern gate hinge. (Canal bench-mark).	33·752	33·760
39		BM.30 / 73 L	32·4	G.T.S. □ B.M. Embedded on S. side of Danpur lock No. 5, 13 feet E. of eastern gate hinge, 6 feet W. of bridge over canal, and 7 feet E. of B.M. No. 38.	36·792	36·800
40		BM.31 / 73 L	33·2	4 feet above H.F.L. ○ 1892 G.T.S.B.M. at High Flood Level Pillar. Embedded on S. bank of Kendrapara canal, at mile-stone No. 27 from Jagatpur. (Canal bench-mark).	35·663	35·671
41		BM.32 / 73 L	34·6	G.T.S.○B.M. On top of mile-stone No. 1 from junction of Gobri and Kendrapara canals.	29·418	29·425

Main-Line 41. (Cuttack to Kendrapara).

Designation of Bench-marks		Distance from Cuttack	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
42	BM.33 / 73 L	35·6	G.T.S.○B.M. On top of mile-stone No. 2 from junction of Gobri and Kendrapara canals.	29·378	29·385
43	BM 34 / 73 L	36·4	G.T.S. ○ B.M. On coping of masonry on S. side of Chakarada lock No. 1, 6 feet E. of eastern gate hinge, and 10 feet W. of bridge over canal.	25·573	25·579
a / 43	BM 35 / 73 L	36·7	G.T.S. ○ B.M. at Canal Bench-Mark. On stone embedded in pillar 3 feet above ground, with its top surface projecting 4 inches above pillar; on N. side of Gobri canal, 65 feet N. of N. bank, and opposite mile-stone No. 3 from junction of Gobri and Kendrapara canals.	23·281	23·286
44	BM.36 / 73 L	37·3	○ G T S. B.M. On top of Gobri canal mile-stone No. 31 from Jagatpur.	25·494	25·500
45	BM 37 / 73 L	38·2	G T.S.○B.M. at Bharatpur Village. On top of stone embedded upright in ground, and 1 foot being above surface; opposite telegraph post No. $\frac{5}{0}$, 46 feet from N bank of Gobri canal, and 8 chains W. of mile-stone No. 32 from Jagatpur.	17·260	17·264
46	BM 38 / 73 L	38·3	○ G.T S. B.M. On top of Gobri canal mile-stone No. 32 from Jagatpur.	22·556	22·561
47	BM 39 / 73 L	39·3	○ G.T.S. B.M. On top of Gobri canal mile-stone No. 33 from Jagatpur.	22·495	22·500
48	BM.40 / 73 L	40·3	○ G.T S. B.M. On top of Gobri canal mile-stone No. 34 from Jagatpur.	23·222	23·227
49	BM 41 / 73 L	40·8	G T S. ○ B.M. On coping of masonry on N. side of Kendrapara lock No. 2, 1 yard E. of western gate hinge.	19·672	19·677
50	BM.42 / 73 L	41·5	G.T.S. ○ B.M On centre of top step leading into W. entrance to Sub-divisional Officer's kachahri, Kendrapara.	19·480	19·484
51	BM.43 / 73 L	41·5	G.T.S. □ B.M. at Kendrapara. Situated in Sub-divisional kachahri compound, 29 yards W. of western entrance to kachahri, and 7 and 9 feet respectively from N.W. and N.E. corners of a pakka well in compound. The bench-mark consists of usual embedded stone 9 inches of which is above ground level.	20·796	20·801

Main-Line 42. (False Point to Kendrapara).

Designation of Bench-marks			Distance from False Point	Description of Bench-marks	Corrected Elevation	
Geodetic		Topographic			Dynamic	Orthometric
			miles		*feet*	*feet*
1		BM.44 / 73 L	0·0	G.T.S. ○ B.M. at False Point Light House. Situated immediately outside wall surrounding light house, 3 feet E. of eastern gate. The bench-mark consists of a large smooth stone engraved as above, set in masonry pavement which leads from gate to boat house; the stone projects 3 inches above pavement.	14·909	14·913
	1/1	BM.45 / 73 L	8·5	G.T.S. □ B.M. B. at False Point. Situated 11 feet S.W. of S.W. pile of old Refuge House at Hookey Tola.	10·036	10·038
	1a/1	BM.46 / 73 L	8·5	↑ B.M. at False Point. On S.W. pile of old Refuge House at Hookey Tola. (Marine Survey bench-mark).	10·401	10·403
	2/1	BM.47 / 73 L	8·5	G.T.S. □ B.M. A. at False Point. Embedded in plinth below central arch on W. side of new Refuge House at Hookey Tola.	27·272	27·278
	2a/1	BM.48 / 73 L	8·6	G.T.S. □ B.M. C. at False Point. Embedded in plinth below central arch on E. side of new Refuge House at Hookey Tola.	27·258	27·264
2		BM.49 / 73 L	10·5	○ On top of mile-stone No. 50 from Cuttack and No. 4 from Jambu, on Kendrapara canal.	11·909	11·912
3		BM.50 / 73 L	11·5	○ On top of mile-stone No. 49 from Cuttack and No. 5 from Jambu.	12·602	12·605
4		BM.51 / 73 L	12·5	○ On top of mile-stone No. 48 from Cuttack and No. 6 from Jambu.	12·788	12·791
5		BM.52 / 73 L	13·5	○ On top of mile-stone No. 47 from Cuttack and No. 7 from Jambu.	12·769	12·772
6		BM.53 / 73 L	14·5	○ On top of mile-stone No. 46 from Cuttack and No. 8 from Jambu.	13·208	13·211
7		BM.54 / 73 L	15·5	○ On top of mile-stone No. 45 from Cuttack and No. 9 from Jambu.	13·457	13·460
8		BM.55 / 73 L	16·5	○ On top of mile-stone No. 44 from Cuttack and No. 10 from Jambu.	13·112	13·115
9		BM.56 / 73 L	17·5	○ On top of mile-stone No. 43 from Cuttack and No. 11 from Jambu.	14·689	14·692
10		BM.57 / 73 L	18·5	○ On top of mile-stone No. 42 from Cuttack and No. 12 from Jambu.	14·718	14·721
11		BM.58 / 73 L	19·5	○ On top of mile-stone No. 41 from Cuttack and No. 13 from Jambu.	15·873	15·877
12		BM.59 / 73 L	20·5	○ On top of mile-stone No. 40 from Cuttack and No. 14 from Jambu.	15·115	15·118

Main-Line 42. (False Point to Kendrapara).

Designation of Bench-marks		Distance from False Point	Description of Bench-marks	Corrected Elevation	
Geodetic	Topographic			Dynamic	Orthometric
		miles		*feet*	*feet*
a/12	BM 60/73 L	21·4	G.T.S. ○ B.M. On N. abutment of central lock of canal at Marsaghai, about 1 yard E. of sluice crane.	16·595	16·599
13	BM.61/73 L	21·7	G.T.S. □ B.M. at Marsaghai. Embedded in middle of front verandah of travellers' bungalow flush with floor, and 15 yards from N. bank of Kendrapara canal.	15·523	15·527
14	BM.62/73 L	22·0	G.T.S. ○ B.M. On centre of N. parapet of sluice, 400 yards W. of travellers' bungalow at Marsaghai.	21·552	21·557
15	BM 63/73 L	22·6	○ On top of mile-stone No. 38 from Cuttack, on Kendrapara canal.	19·536	19·541
16	BM.64/73 L	23·6	○ On top of mile-stone No. 37 from Cuttack, on Kendrapara canal.	20·449	20·454
17	BM.65/73 L	23·9	G.T.S. ○ B.M. On N. end of W. abutment of sluice, on N. bank of Kendrapara canal, opposite Mantir village.	20·748	20·753
18	BM 66/73 L	24·6	Top of mile-stone No. 36 from Cuttack, on Kendrapara canal.	20·362	20·367
a/18	BM.67/73 L	25·5	G.T.S. ○ B.M. On N. abutment of canal lock at Kalapadar, 1 yard E. of gate hinge.	19·767	19·772
19	BM.68/73 L	25·6	Top of mile-stone No. 35 from Cuttack, on Kendrapara canal.	21·913	21·918
20	BM 69/73 L	26·6	Top of mile-stone No. 34 from Cuttack, on Kendrapara canal.	22·413	22·418
21	BM 70/73 L	29·8	G.T.S. ○ B.M. On W. coping of N abutment of Santsai bridge across Gobri canal at Kendrapara.	29·910	29·917
22	BM 42/73 L	30·4	G.T.S. ○ B.M. On centre of top step leading into W. entrance to Sub-divisional Officer's kachahri, Kendrapara.	19·480	19·484
23	BM.43/73 L	30·4	G.T.S. □ B.M. at Kendrapara. Situated in sub-divisional kachahri compound, 29 yards W. of western entrance to kachahri, and 7 and 9 feet respectively from N. W. and N.E. corners of a pakka well in compound. The bench-mark consists of usual embedded stone 9 inches of which is above ground level.	20·796	20·801

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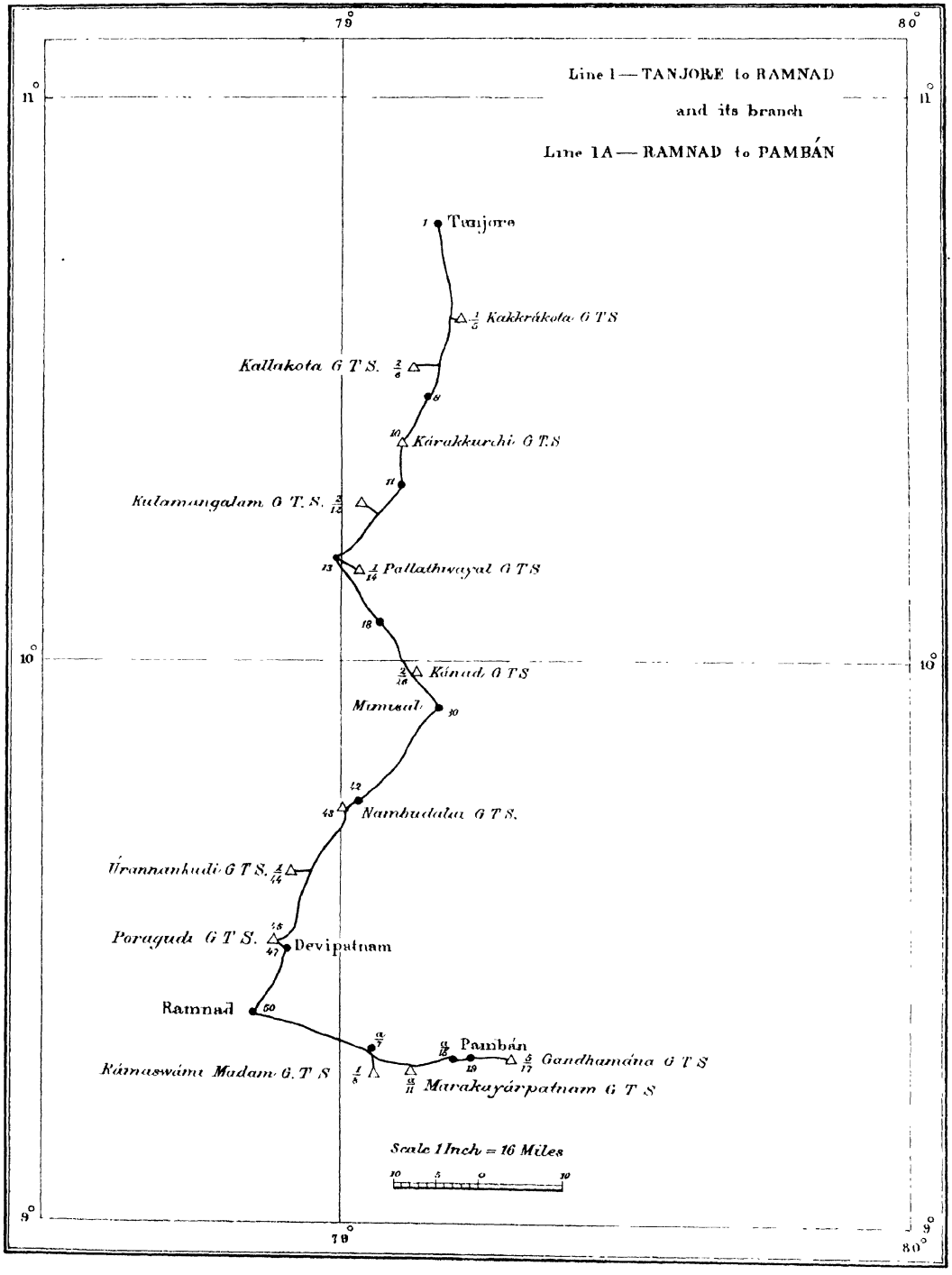
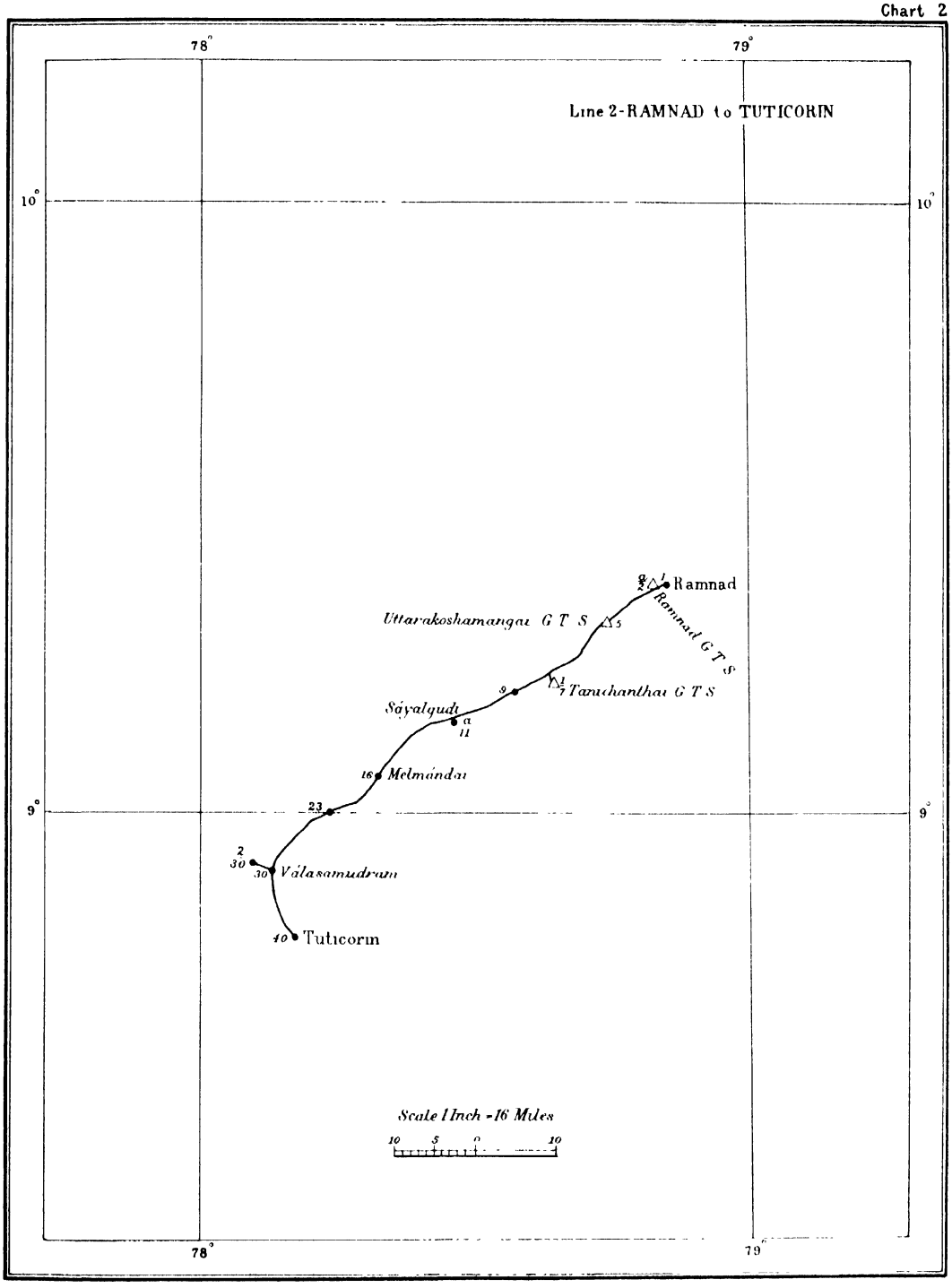
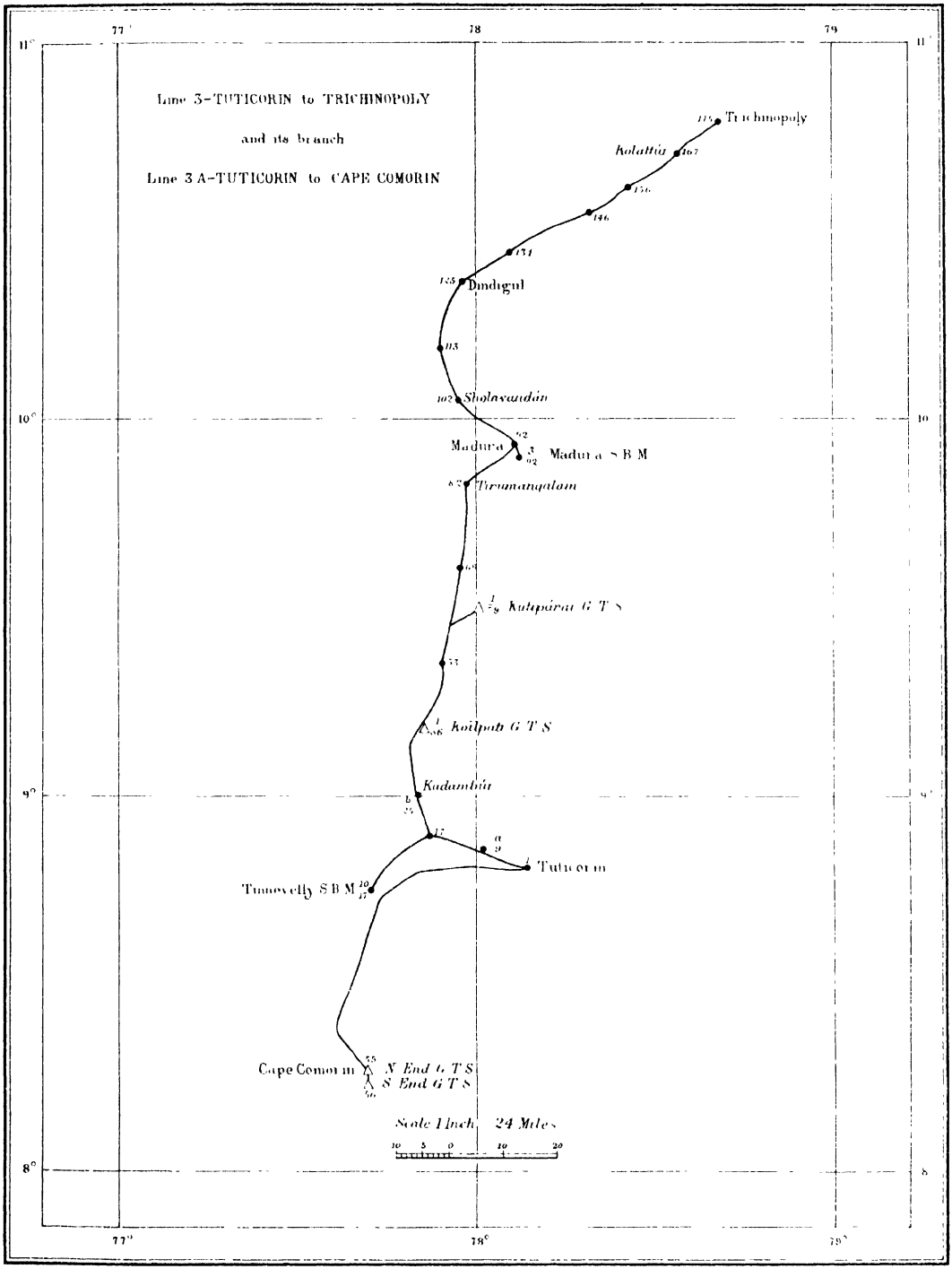
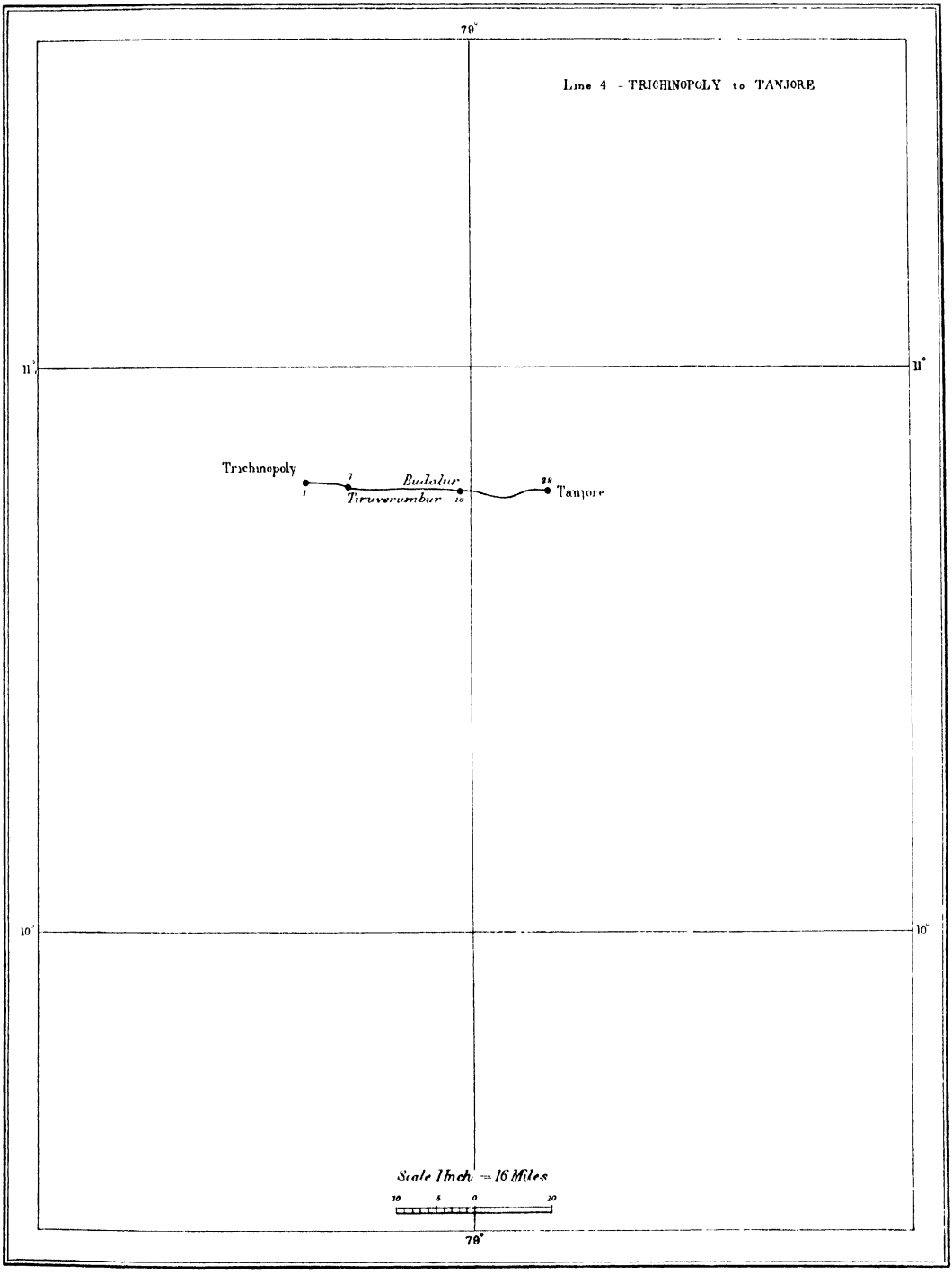
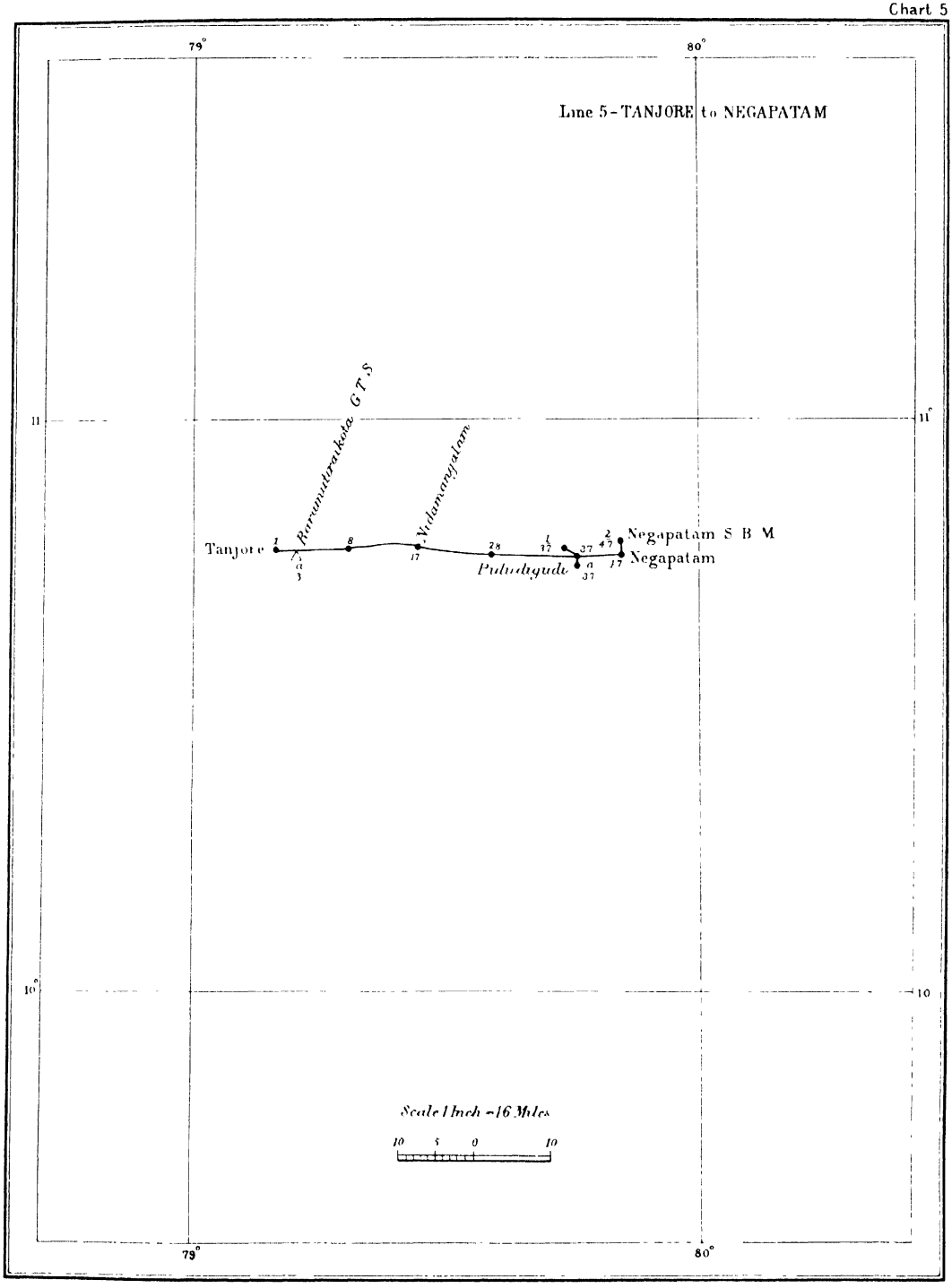

79°
80°
11°
10°
9°
Line 1 — TANJORE to RAMNAD
and its branch
Line 1A — RAMNAD to PAMBÁN
1 Tanjore
1/5 Kakkrákota G T S
Kallakota G T S. 2/6
8
10 Kárakkurchi G T S
11
Kulamangalam G T S. 5/12
13 1/14 Pallathiwayal G T S
18
2/16 Kánad G T S
Mimisal 30
32
43 Nambudala G T S.
Úrannankudi G T S. 4/14
Poraguda G T S. 38/47
Devipatnam
Ramnad 60
Pambán
Gandhamána G T S
Kámaswámi Madam G T S
Marakayárpatnam G T S
Scale 1 Inch = 16 Miles
10 5 0 10

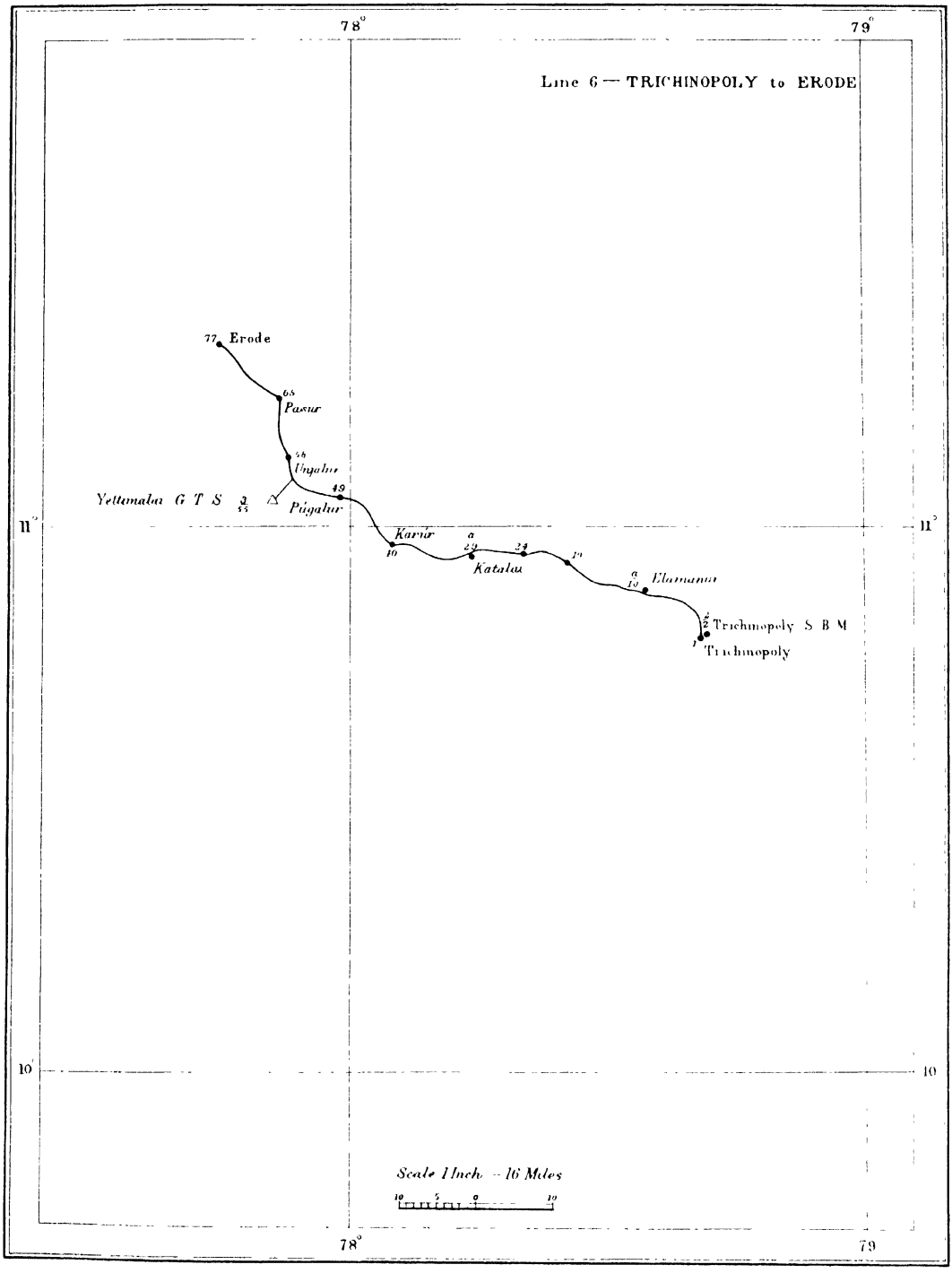
Chart 2

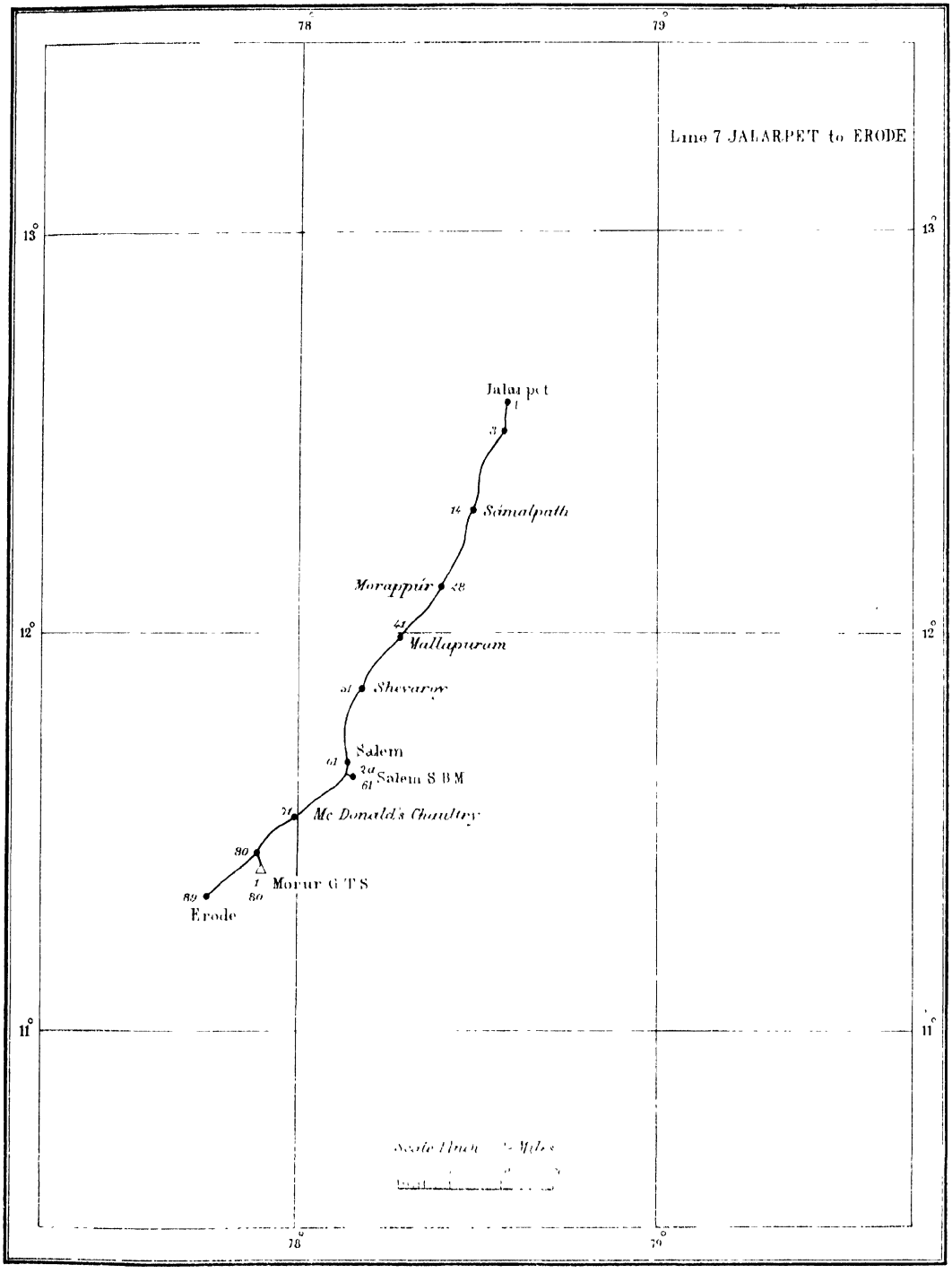

78°
79°
Line 2-RAMNAD to TUTICORIN
10°
10°
Ramnad
Ramnad G T S
Uttarakoshamangai G T S
Tanuchanthai G T S
Sáyalgudi
Melmándai
9°
9°
Válasamudram
Tuticorin
Scale 1 Inch = 16 Miles
10 5 0 10
78°
79°

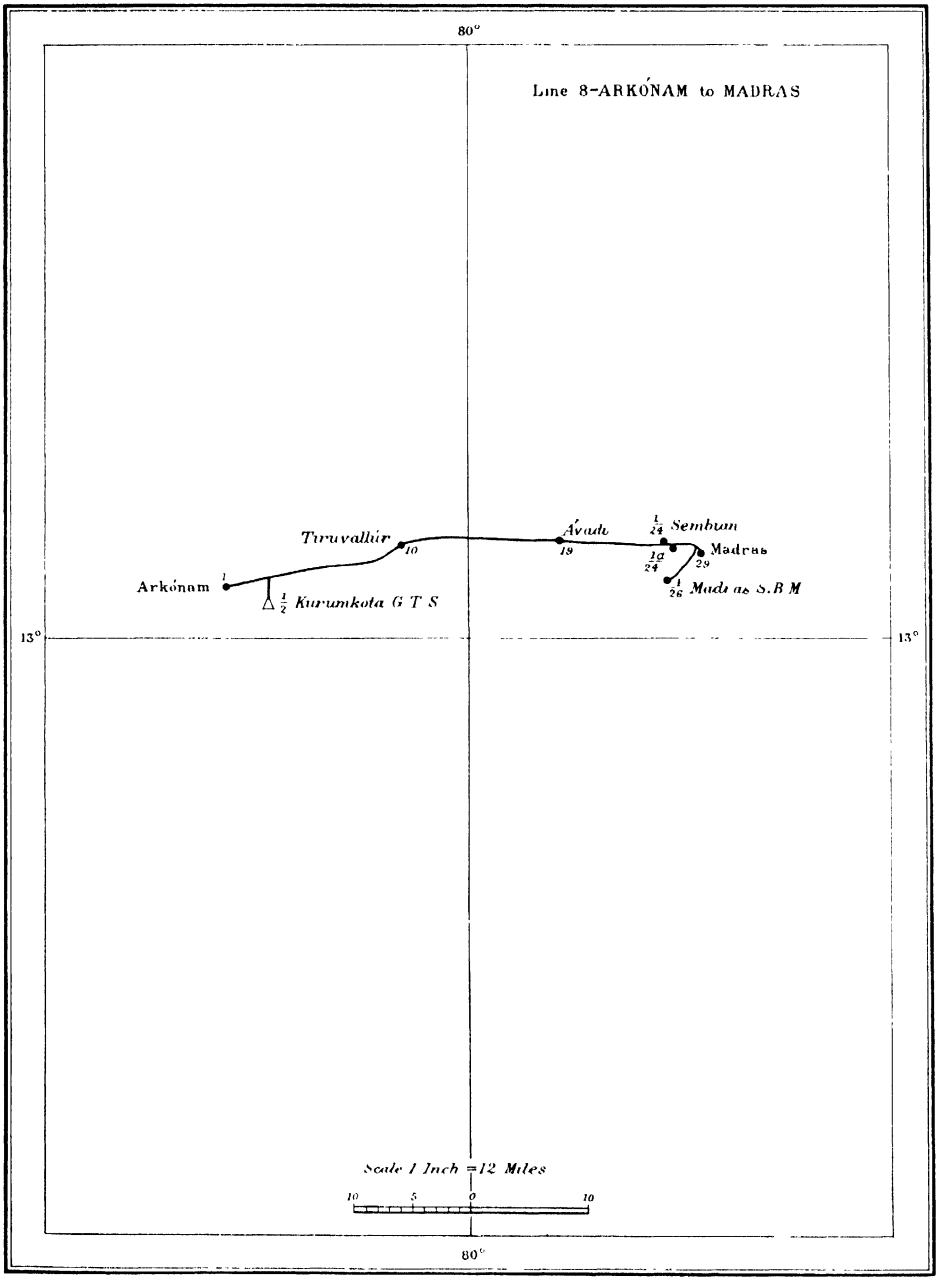

Line 3–TUTICORIN to TRICHINOPOLY
and its branch
Line 3 A–TUTICORIN to CAPE COMORIN
Trichinopoly
Kolattia
Dindigul
Sholavandán
Madura
Madura S B M
Tirumangalam
Kulapárai G T S
Koilpatti G T S
Kadambúr
Tuticorin
Tinnevelly S B M
Cape Comorin
N End G T S
S End G T S
Scale 1 Inch 24 Miles
77°
78
79
11°
10°
9°
8°

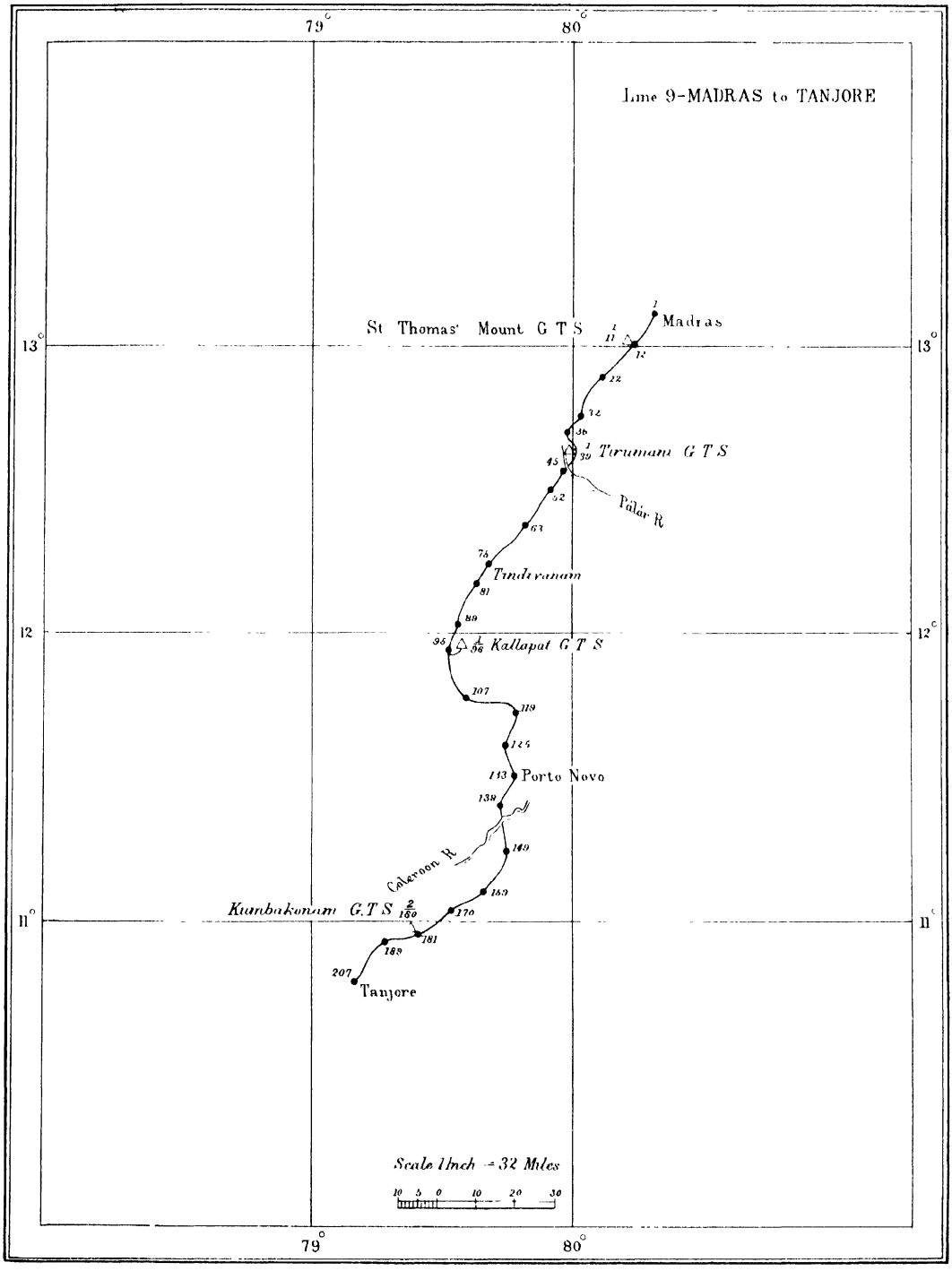

79°
Line 4 - TRICHINOPOLY to TANJORE
11°
11°
Trichinopoly
1
7
Budalur
Tiruverumbur
19
28
Tanjore
10°
10°
Scale 1 Inch = 16 Miles
10
5
0
10
79°

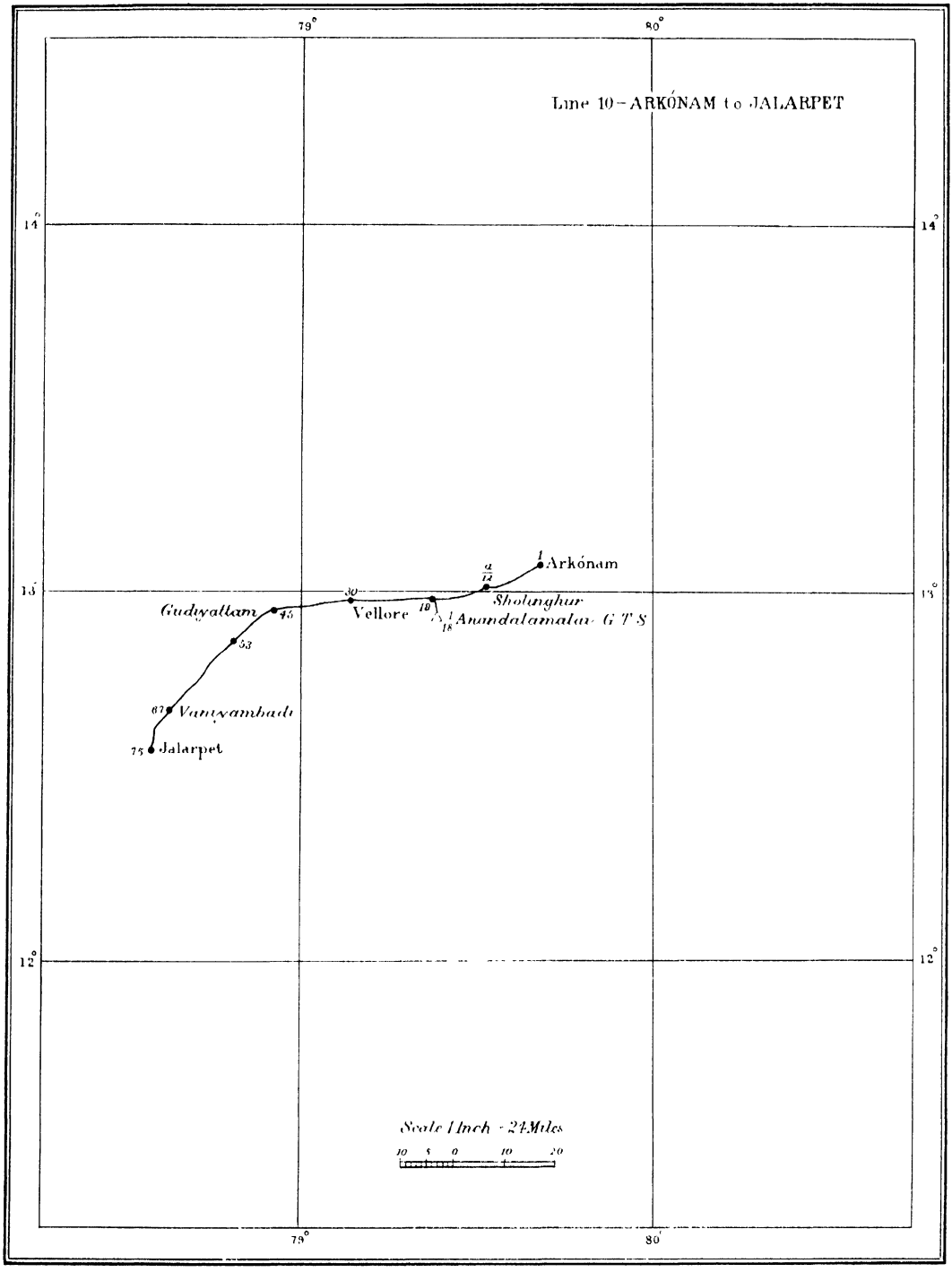

79°
80°
Line 5 - TANJORE to NEGAPATAM
11°
10°
Tanjore
Ravanattarakota G T S
Nidamangalam
Pulidigude
Negapatam S B M
Negapatam
Scale 1 Inch = 16 Miles
10 5 0 10

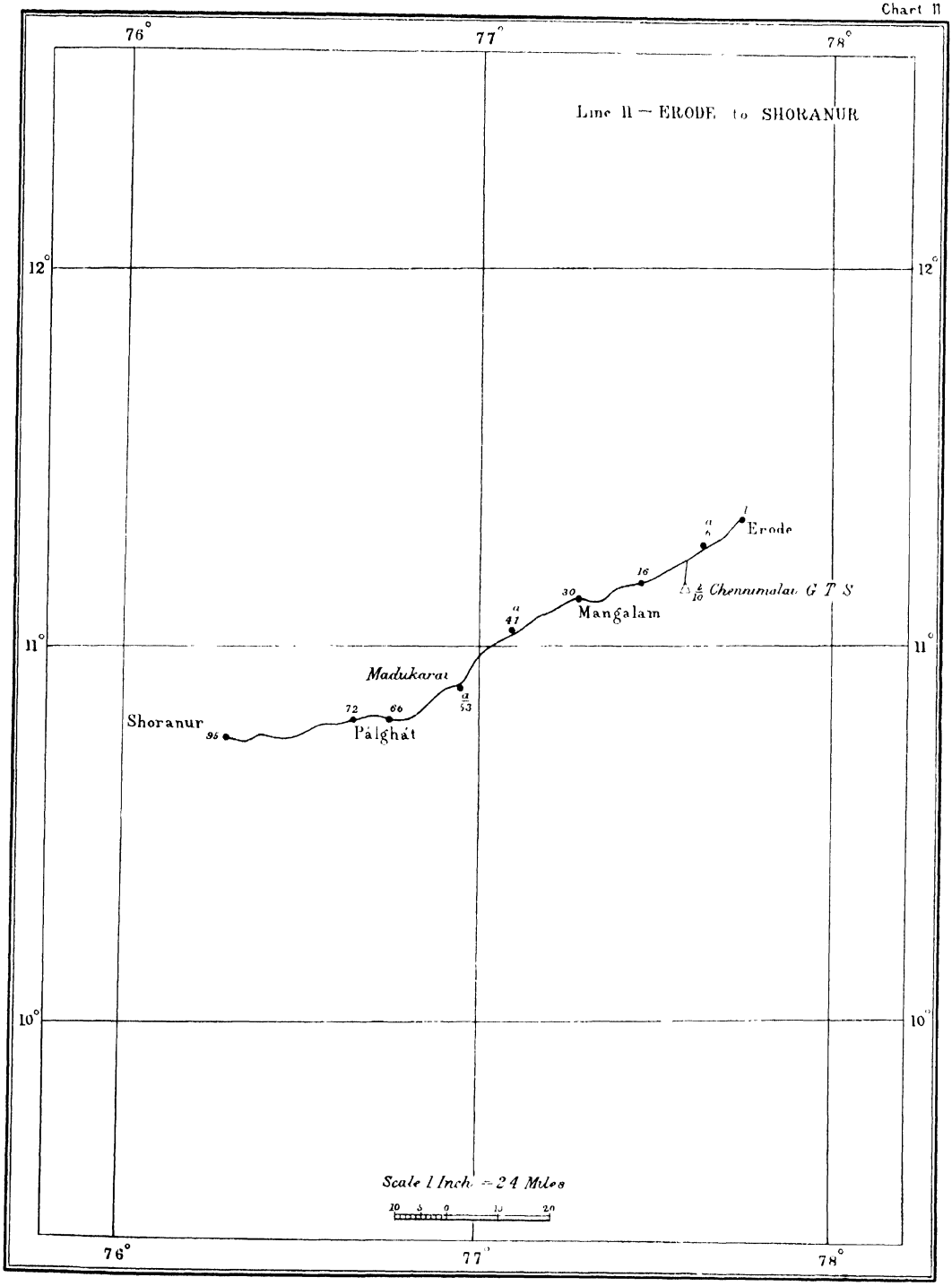

78°
79°
Line 6 — TRICHINOPOLY to ERODE
77 Erode
65
Pasur
56
Ungalur
49
Yettamalai G T S
Púgalur
11°
Karur
10
Katalai
Elamanur
Trichinopoly S B M
Trichinopoly
10°
Scale 1 Inch = 16 Miles
10 5 0 10
78°
79

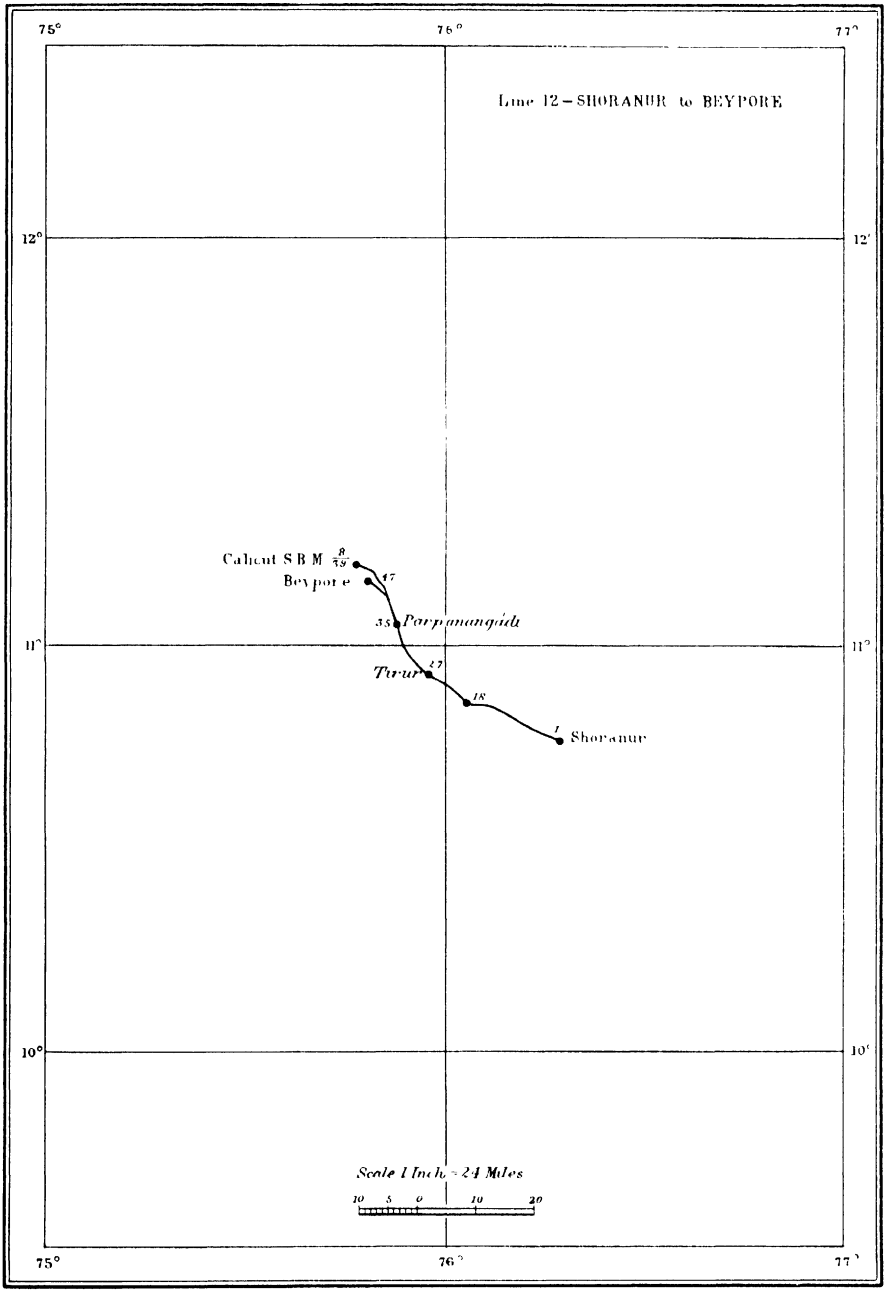

78°
79°
Line 7 JALARPET to ERODE
13°
12°
11°
Jalarpet
1
3
14
Salmalpatti
Morappur
28
41
Mallapuram
51
Shevaroy
Salem
61
24
61
Salem S B M
71
Mc Donald's Chaultry
80
1
80
Morur G T S
89
Erode

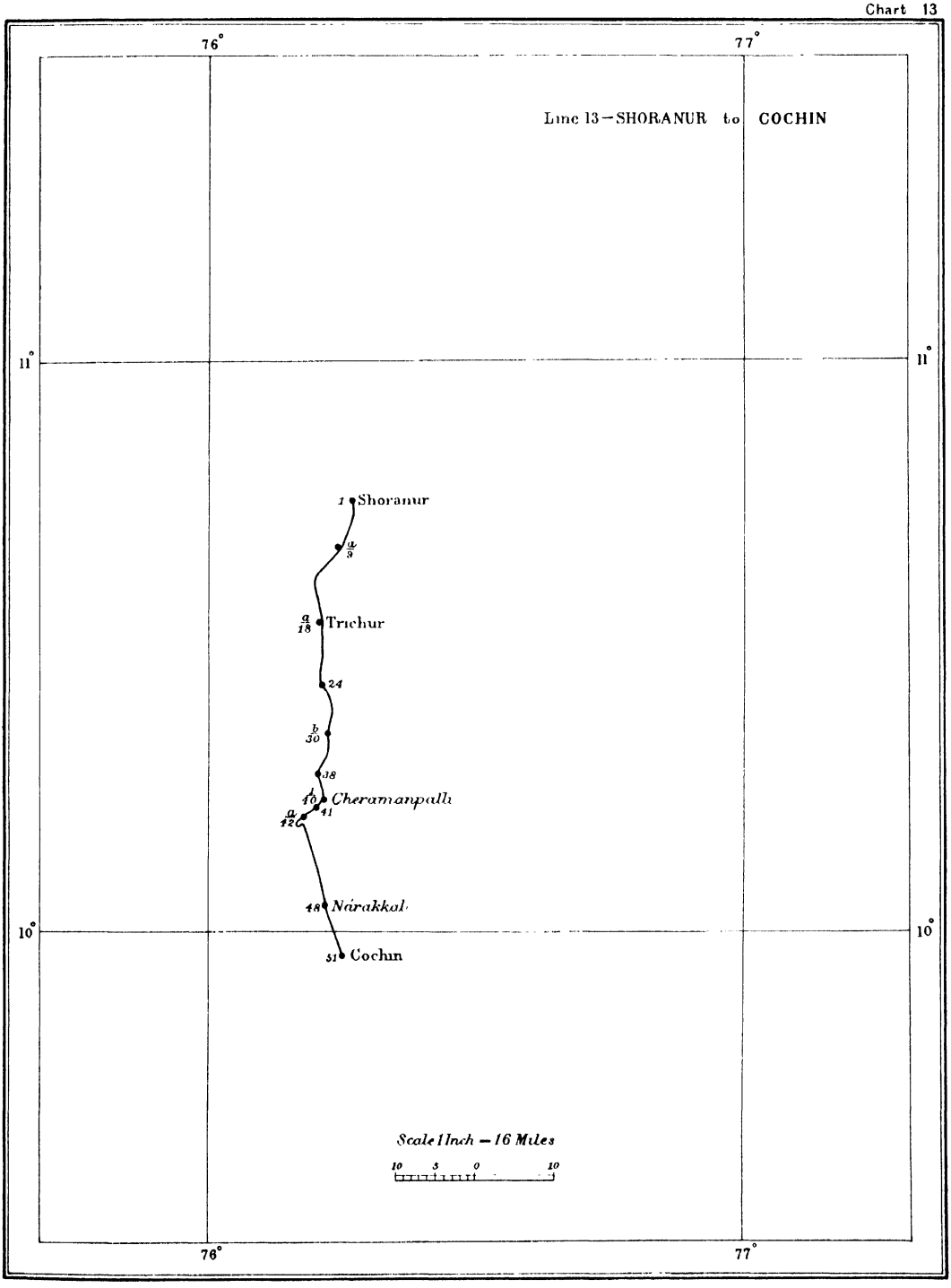

80°
Line 8-ARKÓNAM to MADRAS
Tiruvallúr
10
Ávadi
19
1/24 Sembum
1a/24
Madras
29
1/26 Madras S.B.M
Arkónam
1
1/2 Kurumkota G T S
13°
13°
Scale 1 Inch = 12 Miles
10
5
0
10
80°

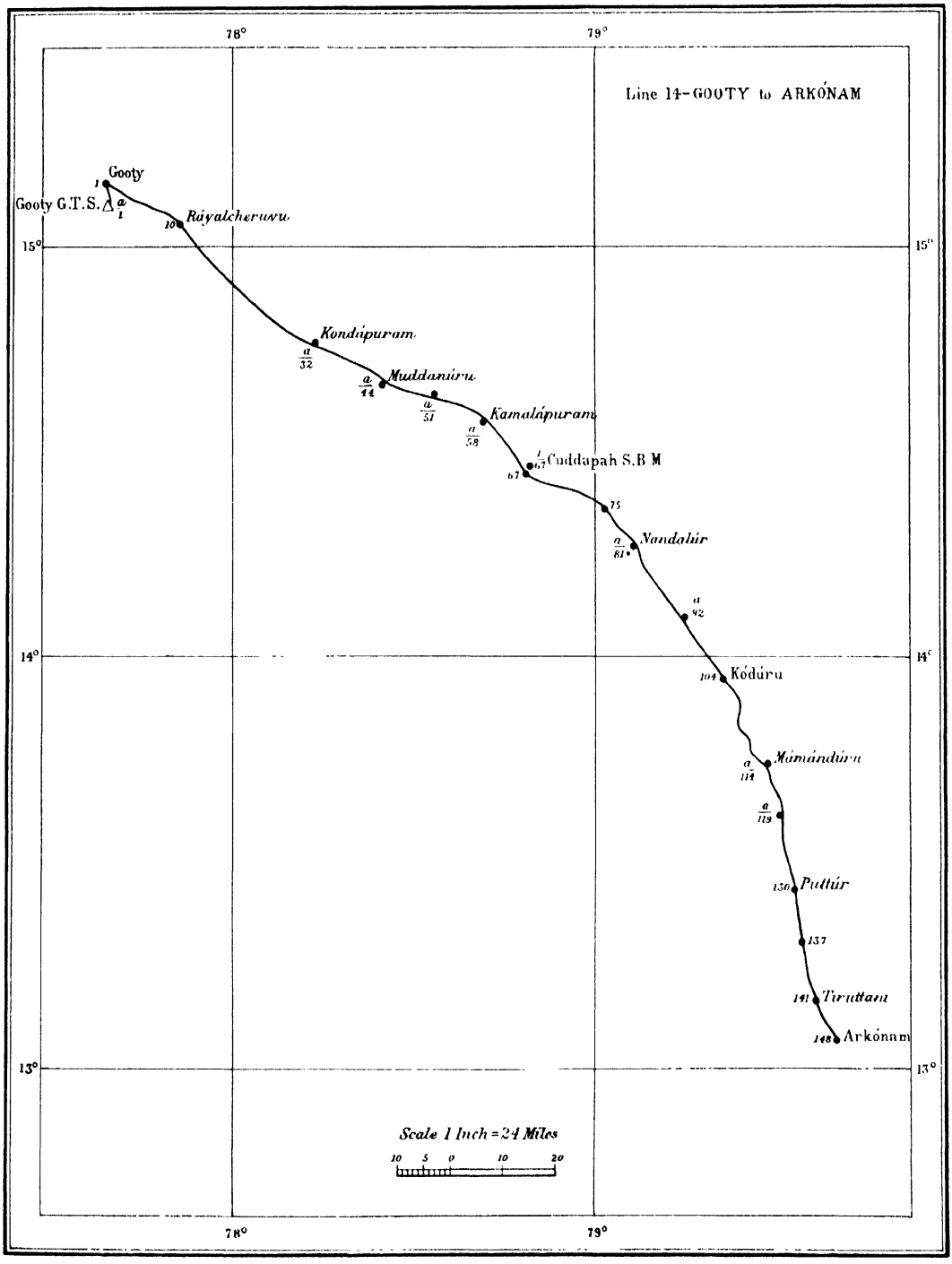

Line 9-MADRAS to TANJORE
79°
80°
13°
12
11°
St Thomas' Mount G T S
Madras
Tirumani G T S
Palar R
Tindivanam
Kallapat G T S
Porto Novo
Coleroon R
Kumbakonam G.T S
Tanjore
Scale 1 Inch = 32 Miles
10 5 0 10 20 30

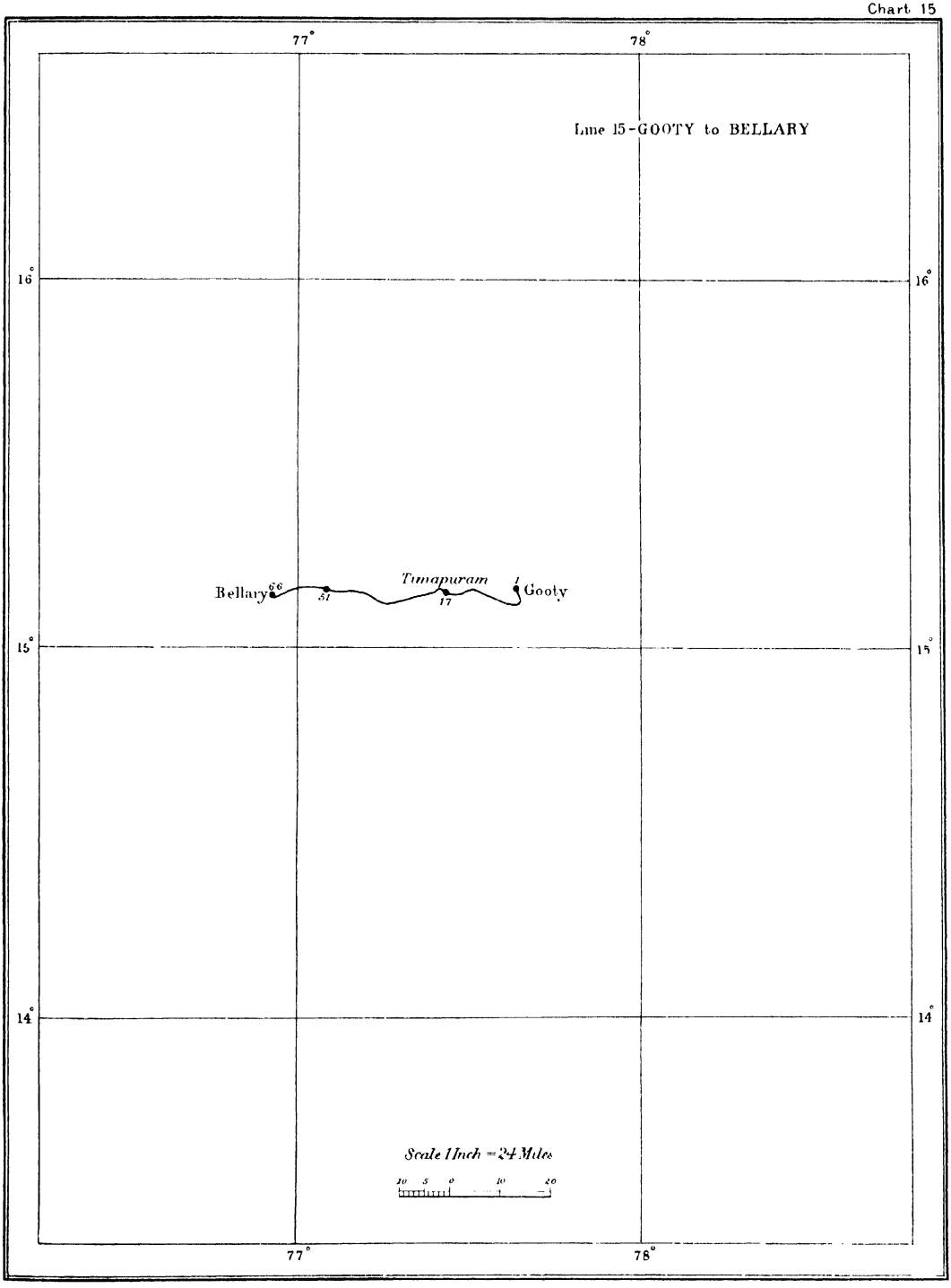

Line 10 – ARKÓNAM to JALARPET
79°
80°
14°
13°
12°
1 Arkónam
a/12
Sholinghur
30
Vellore
19
1/18 Anandalamalai G T S
Gudiyattam
45
53
67 Vaniyambadi
75 Jalarpet
Scale 1 Inch = 24 Miles
10 5 0 10 20

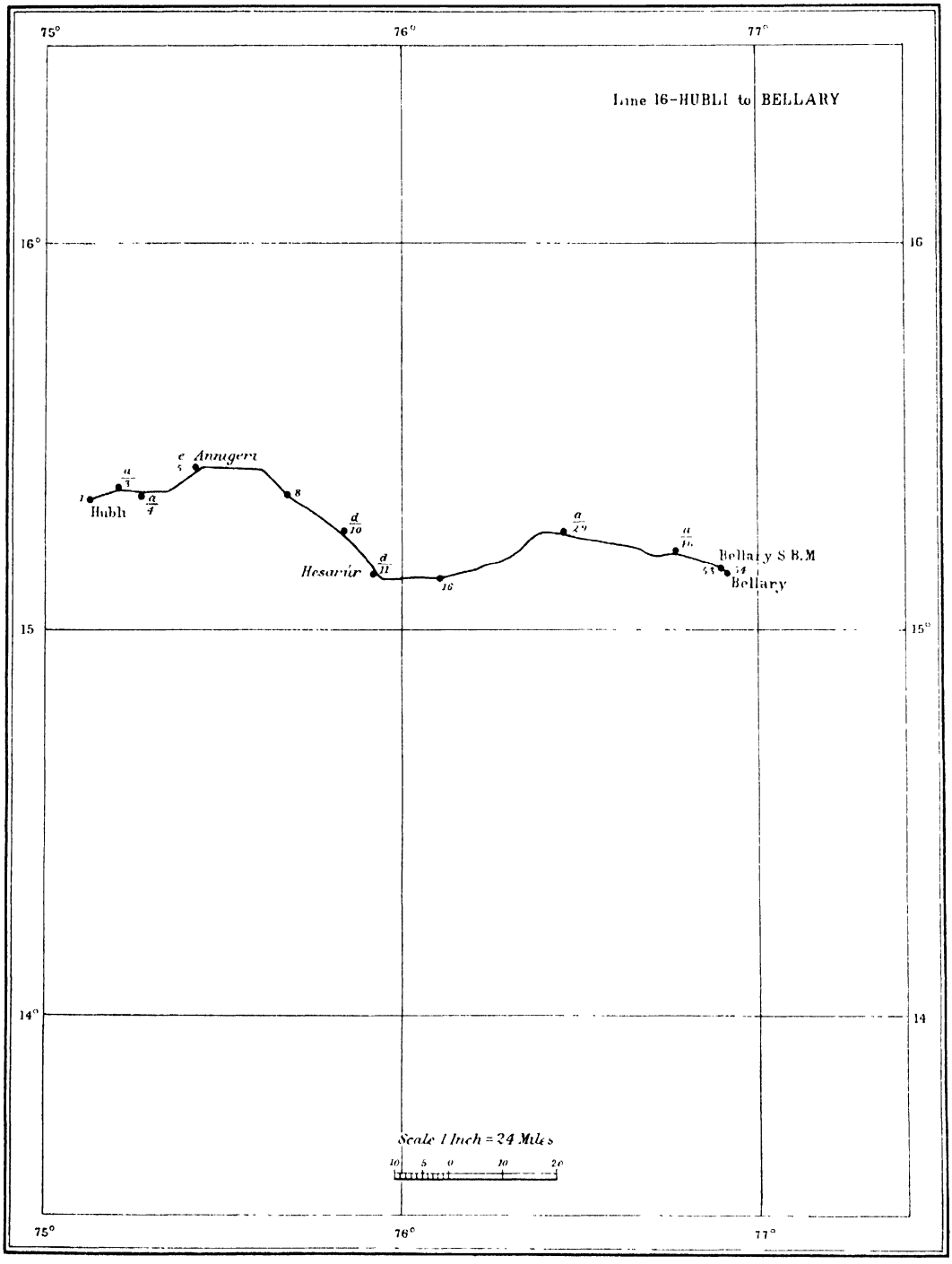

Line 11 — ERODE to SHORANUR
76°
77°
78°
12°
11°
10°
Erode
Chennimalai G T S
Mangalam
Madukarai
Pálghát
Shoranur
Scale 1 Inch = 2 4 Miles

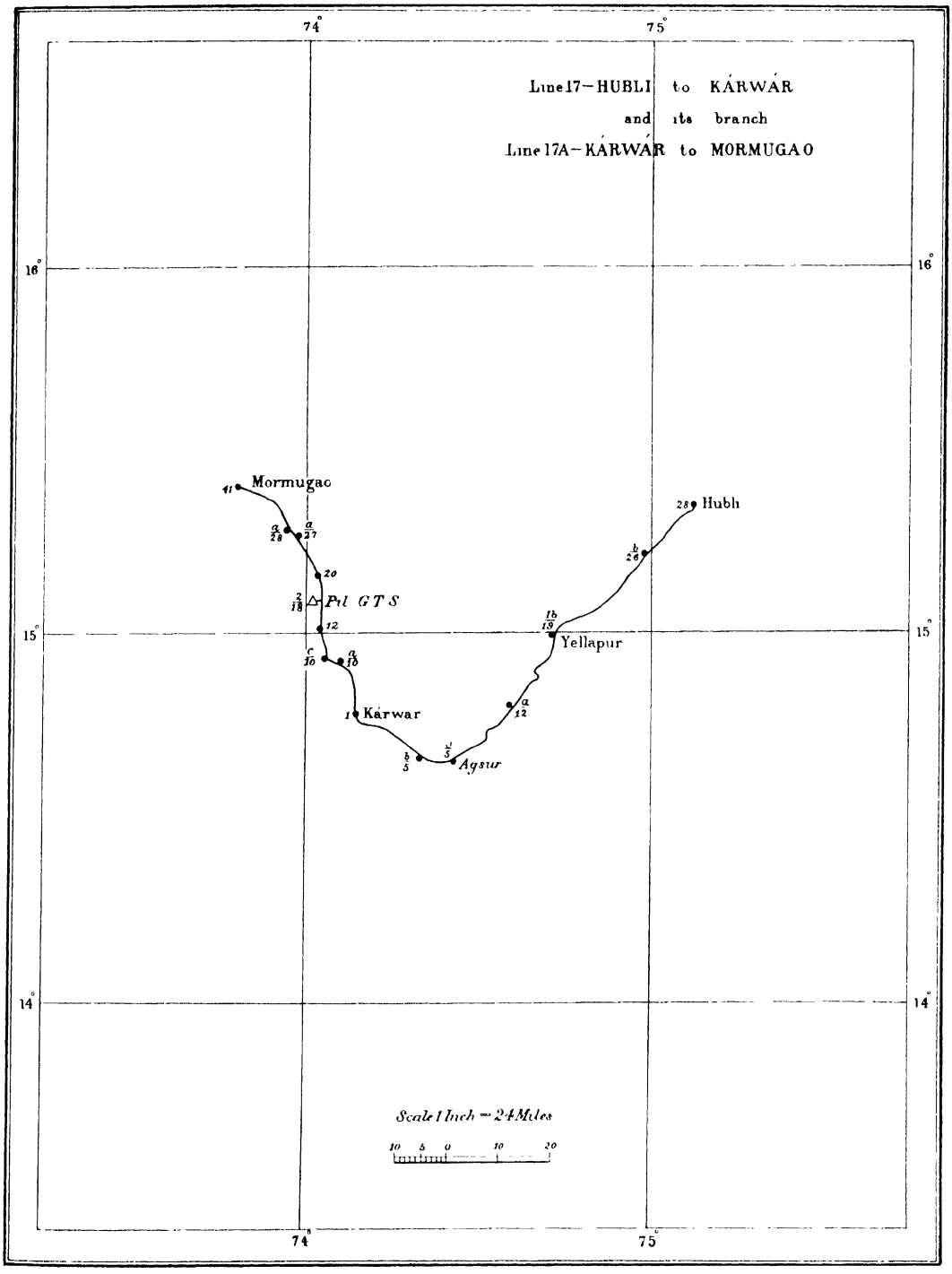

Line 12 – SHORANUR to BEYPORE
75°
76°
77°
12°
11°
10°
Calicut S B M 8/39
Beypore
47
35
Parpanangadi
Tirur
27
18
1
Shoranur
Scale 1 Inch = 24 Miles
10 5 0 10 20

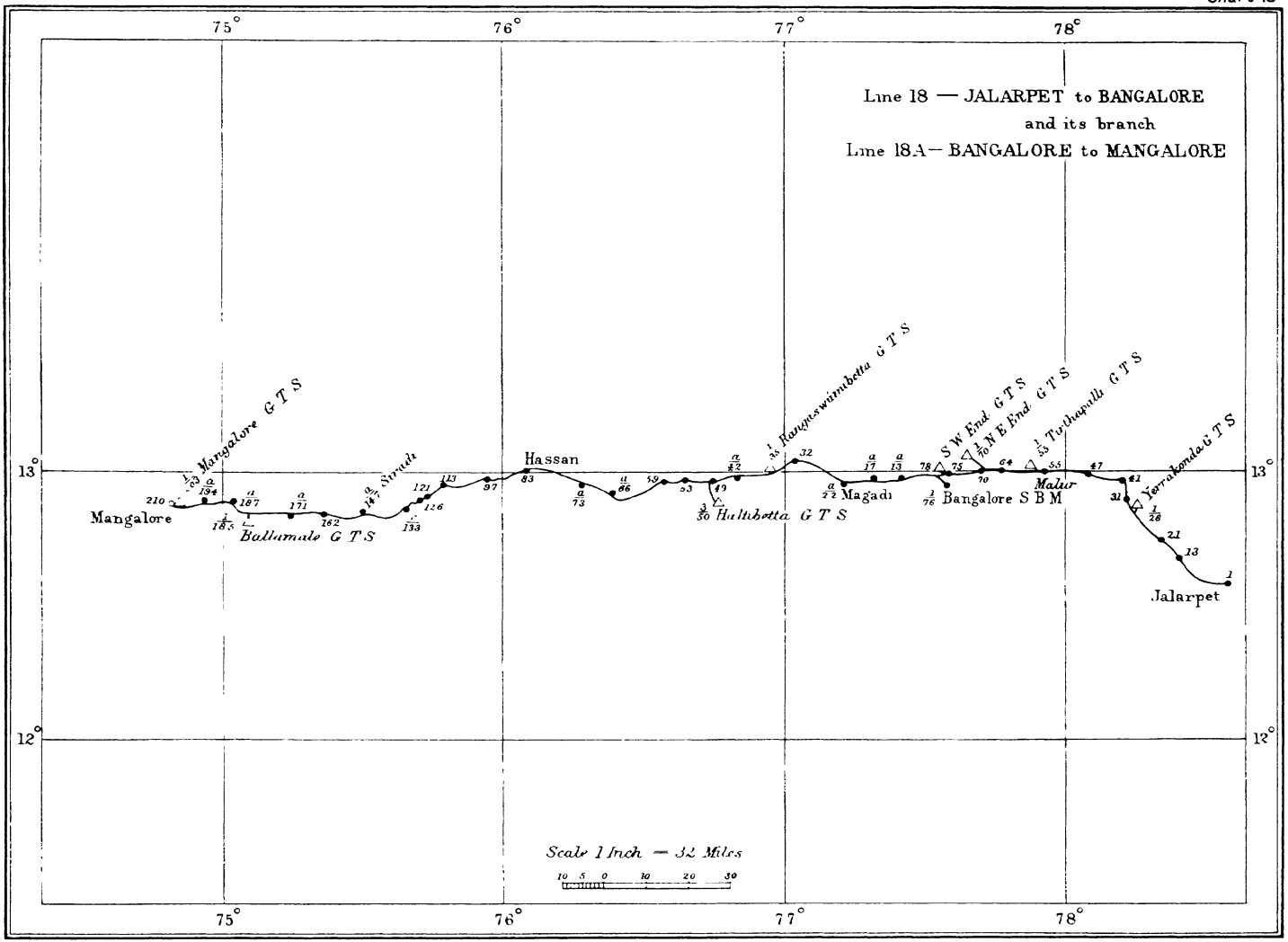

76°
77°
Line 13—SHORANUR to COCHIN
11°
11°
1 Shoranur
a/3
a/18 Trichur
24
b/30
38
b/40 Cheramanpalli
41
a/42
48 Nárakkal
10°
10°
51 Cochin
Scale 1 Inch = 16 Miles
10 5 0 10
76°
77°

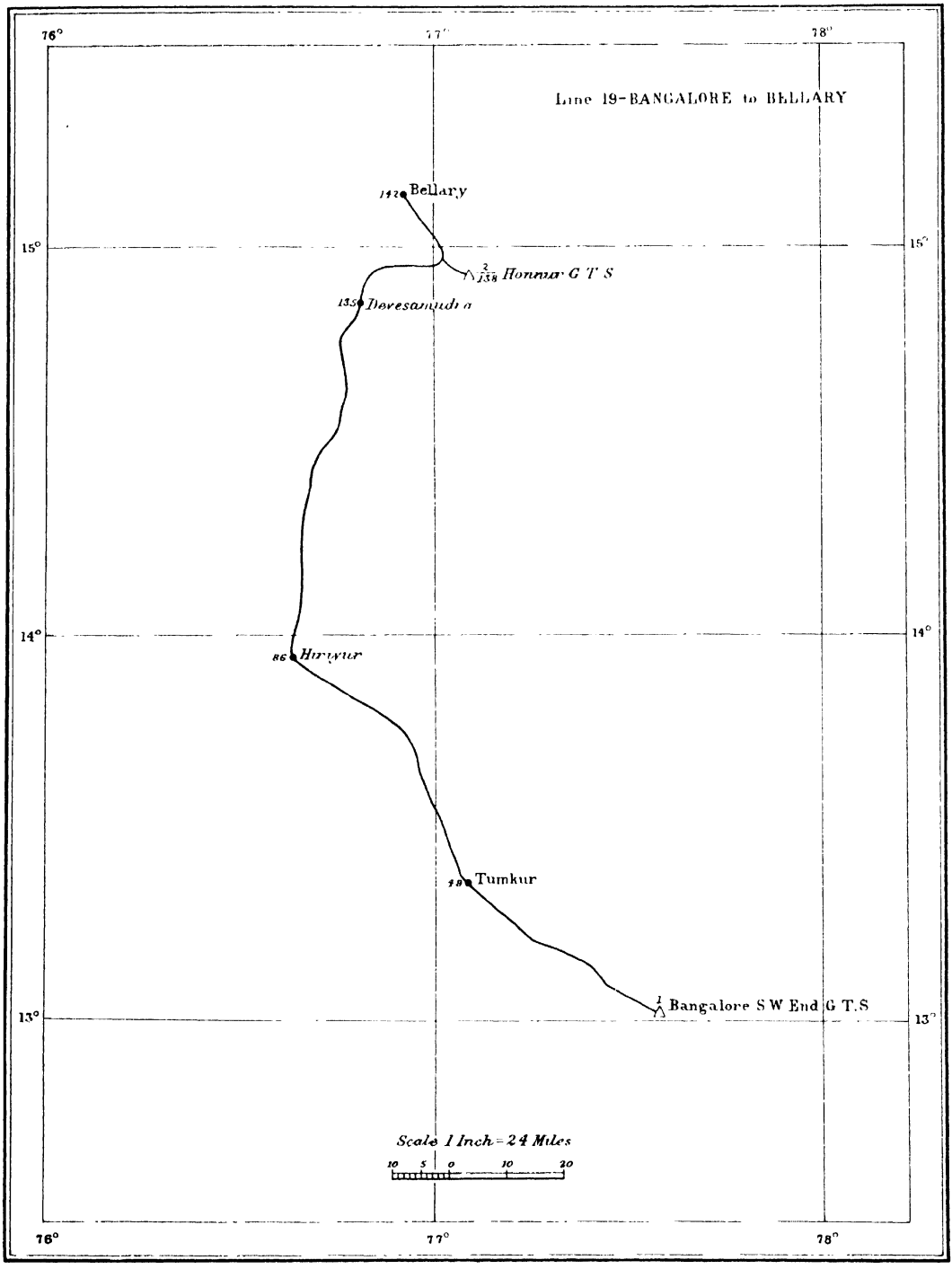

Line 14-GOOTY to ARKÓNAM
78°
79°
15°
14°
13°
Gooty
Gooty G.T.S.
Ráyalcheruvu
Kondápuram
Muddanúru
Kamalápuram
Cuddapah S.B M
Nandalúr
Kódúru
Mámándúru
Puttúr
Tiruttani
Arkónam
Scale 1 Inch = 24 Miles
10 5 0 10 20


77°
78°
Line 15-GOOTY to BELLARY
16°
15°
14°
Bellary
66
51
Timapuram
17
1
Gooty
Scale 1 Inch = 24 Miles
10 5 0 10 20


75°
76°
77°
Line 16-HUBLI to BELLARY
16°
16
e
Annugeri
5
a/3
a/4
1
Hubli
8
d/10
d/11
Hesarur
16
a/29
a/16
Bellary S B.M
Bellary
15
15°
14°
14
Scale 1 Inch = 24 Miles
10
5
0
10
20
75°
76°
77°


74°
75°
Line 17—HUBLI to KÁRWÁR
and its branch
Line 17A—KÁRWÁR to MORMUGAO
16°
15°
14°
Mormugao
Hubli
Pil G T S
Yellapur
Kárwar
Agsur
Scale 1 Inch = 24 Miles
10 5 0 10 20


Line 18 — JALARPET to BANGALORE
and its branch
Line 18A — BANGALORE to MANGALORE
75°
76°
77°
78°
13°
12°
Mangalore G T S
Mangalore
Ballumale G T S
Sirvadi
Hassan
Hulibetta G T S
Ramaswamibetta G T S
Magadi
S W End G T S
N E End G T S
Bangalore S B M
Malur
Tirthapalli G T S
Yerrakonda G T S
Jalarpet
Scale 1 Inch = 32 Miles
10 5 0 10 20 30


Line 19-BANGALORE to BELLARY
76°
77°
78°
15°
14°
13°
142 Bellary
2
138 Honnur G T S
135 Devesamudra
86 Hiriyur
48 Tumkur
1 Bangalore S W End G T.S
Scale 1 Inch = 24 Miles
10 5 0 10 20

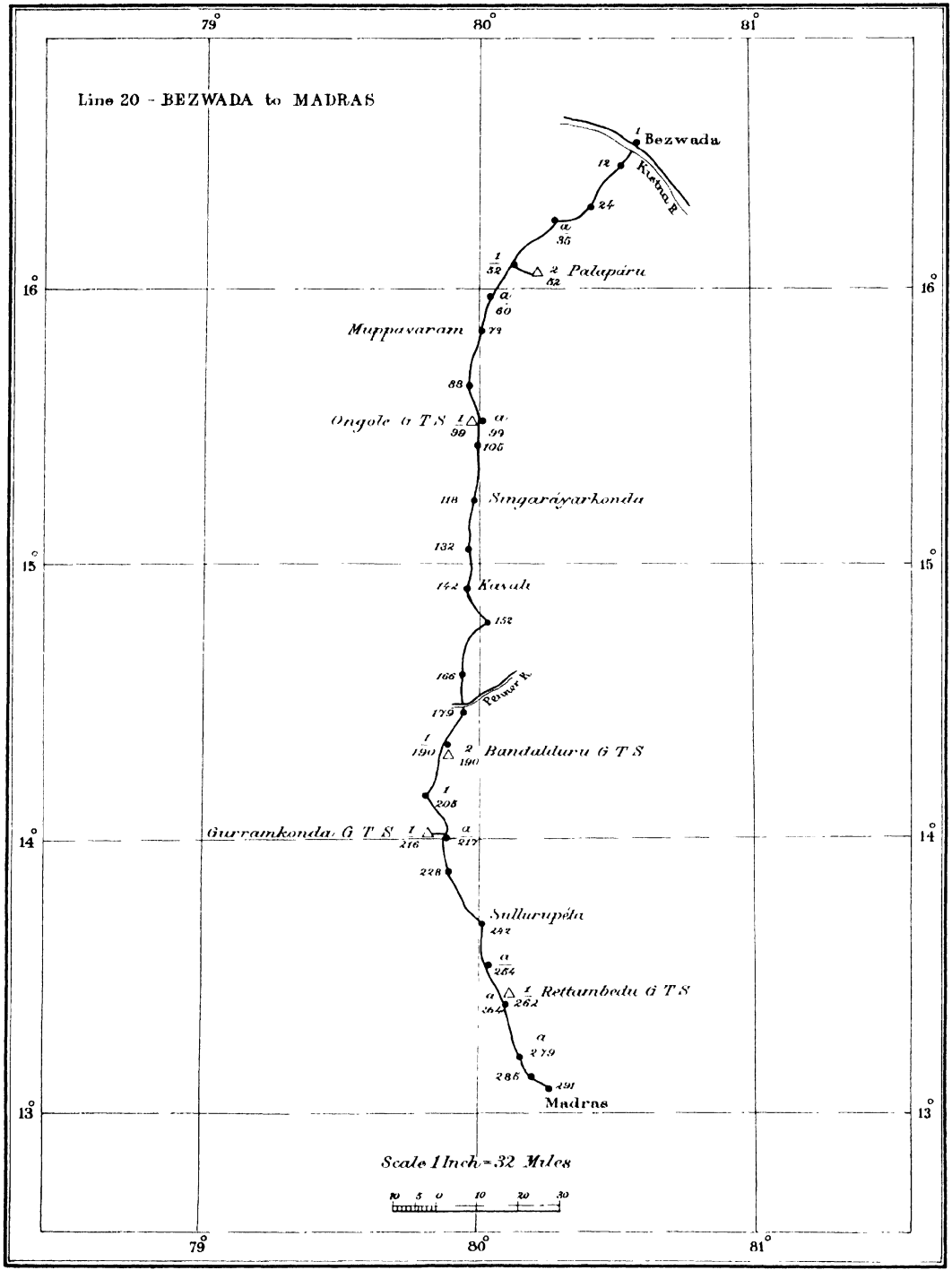
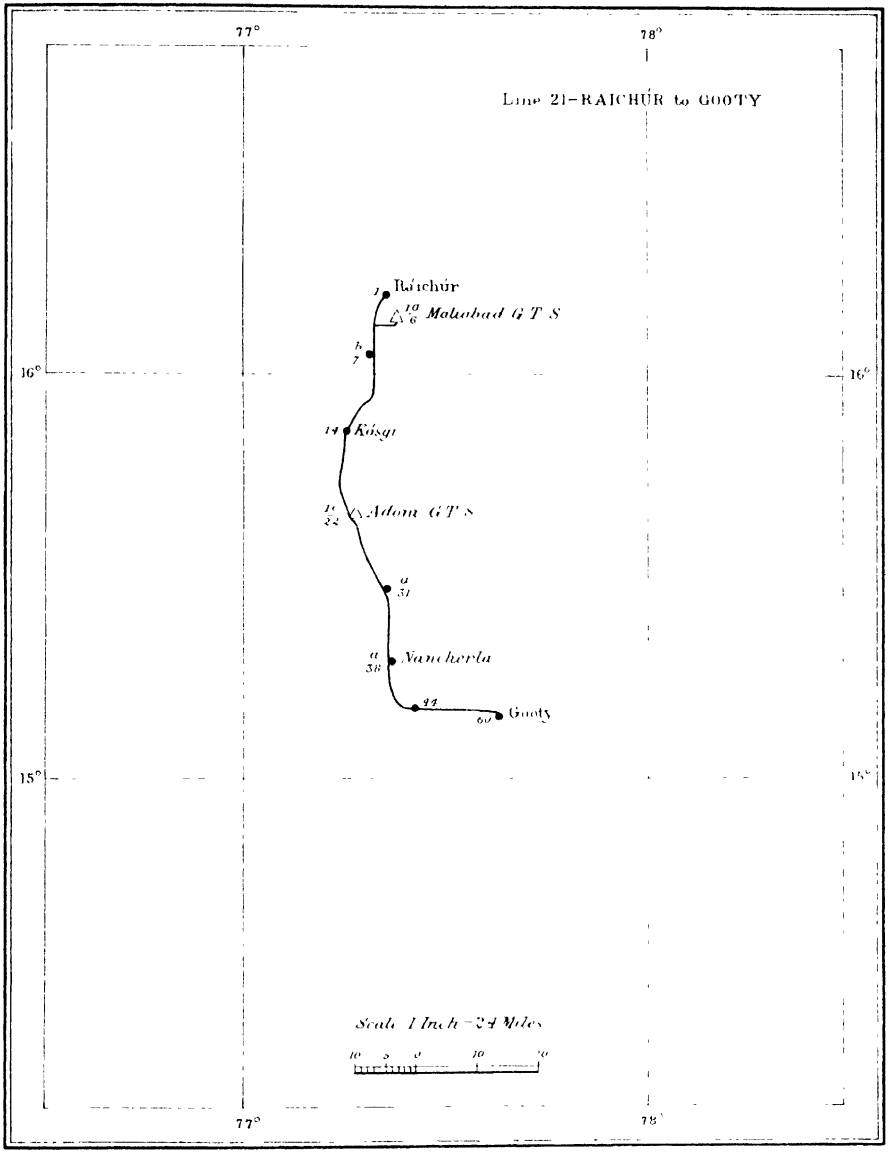
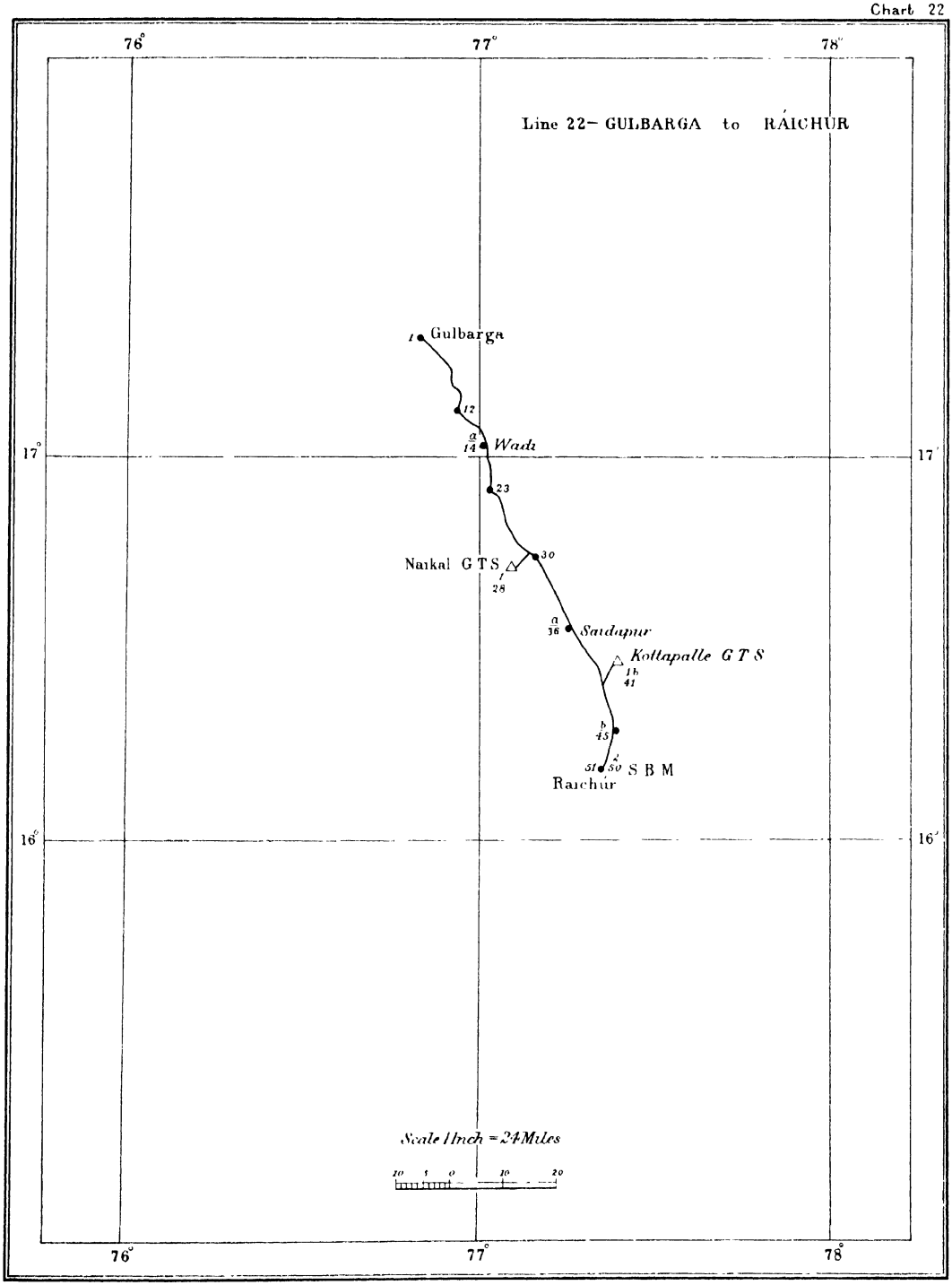
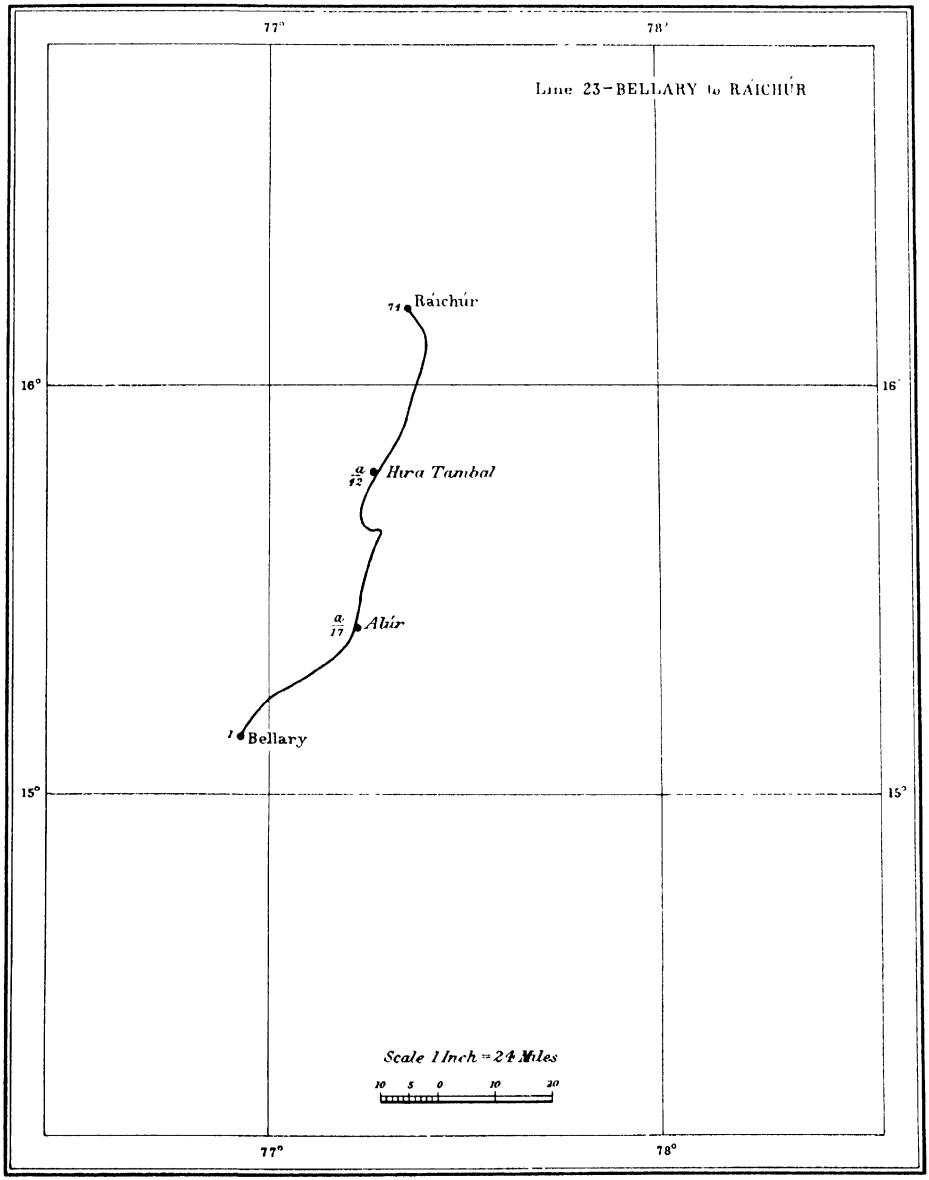
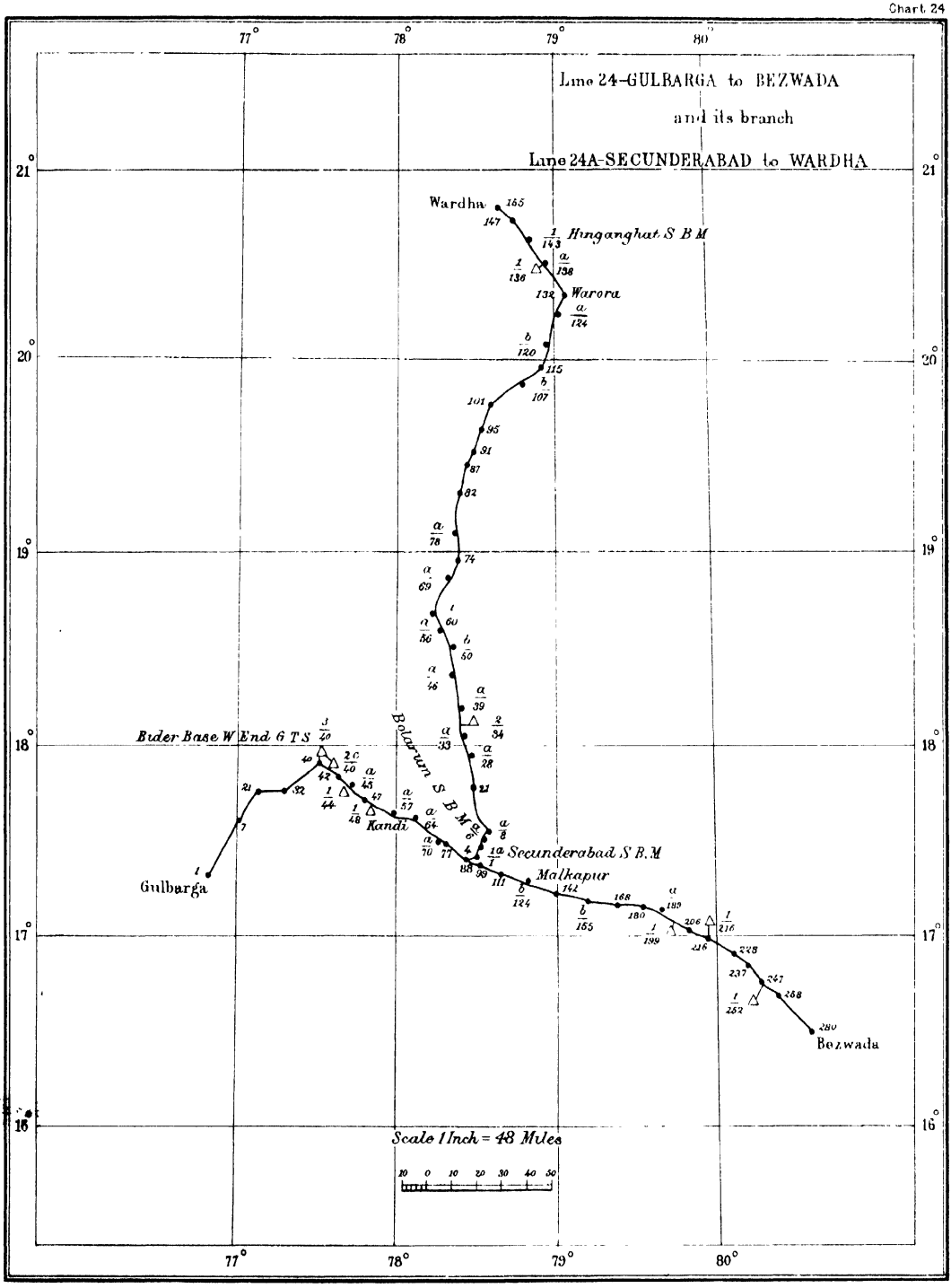

Line 20 - BEZWADA to MADRAS
Bezwada
Krishna R.
Palapáru
Muppavaram
Ongole G T S
Singarayarkonda
Kavali
Pennar R.
Bandaldurru G T S
Gurramkonda G T S
Sullurupéta
Rettambedu G T S
Madras
Scale 1 Inch = 32 Miles
79°
80°
81°
16°
15°
14°
13°

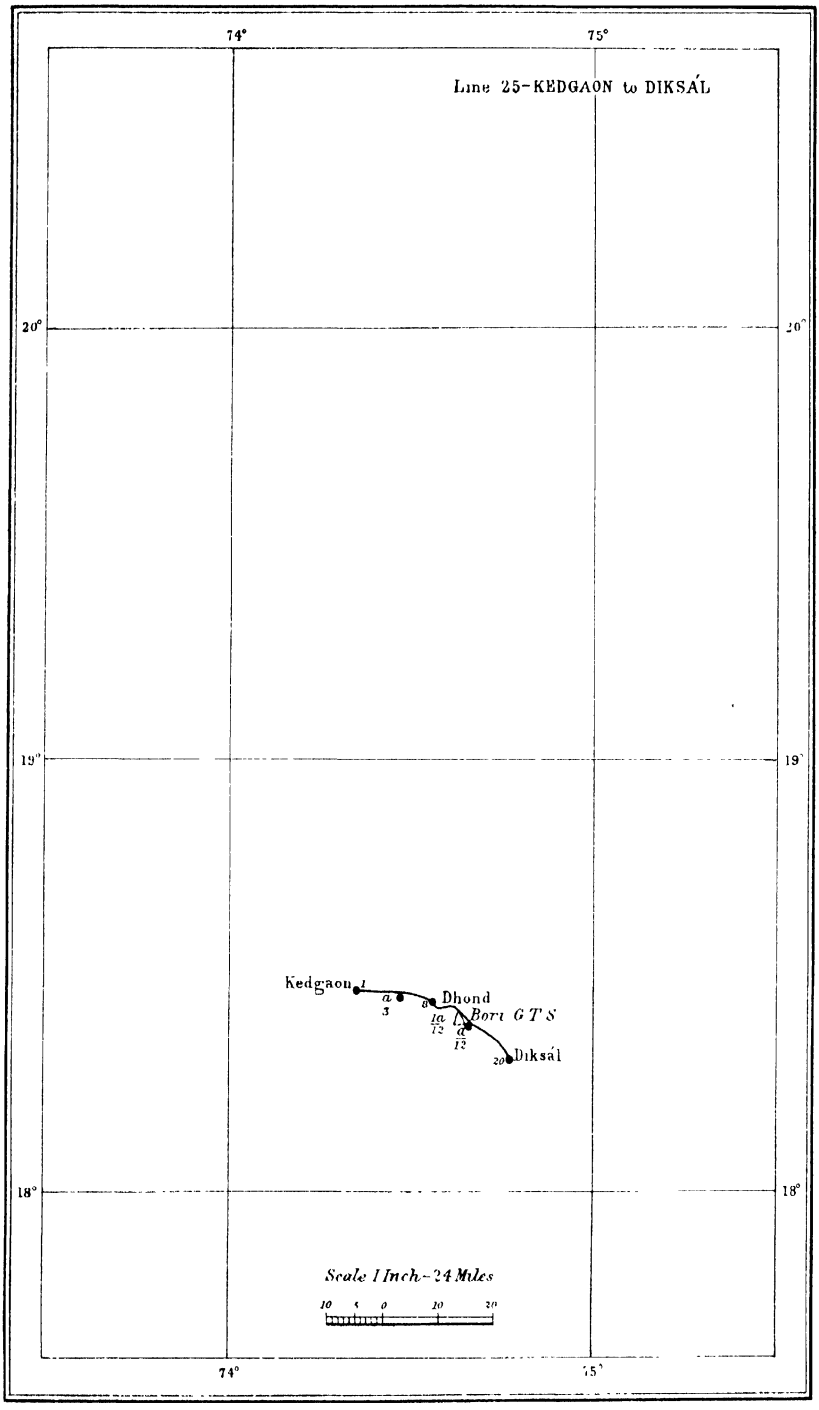
Chart 21

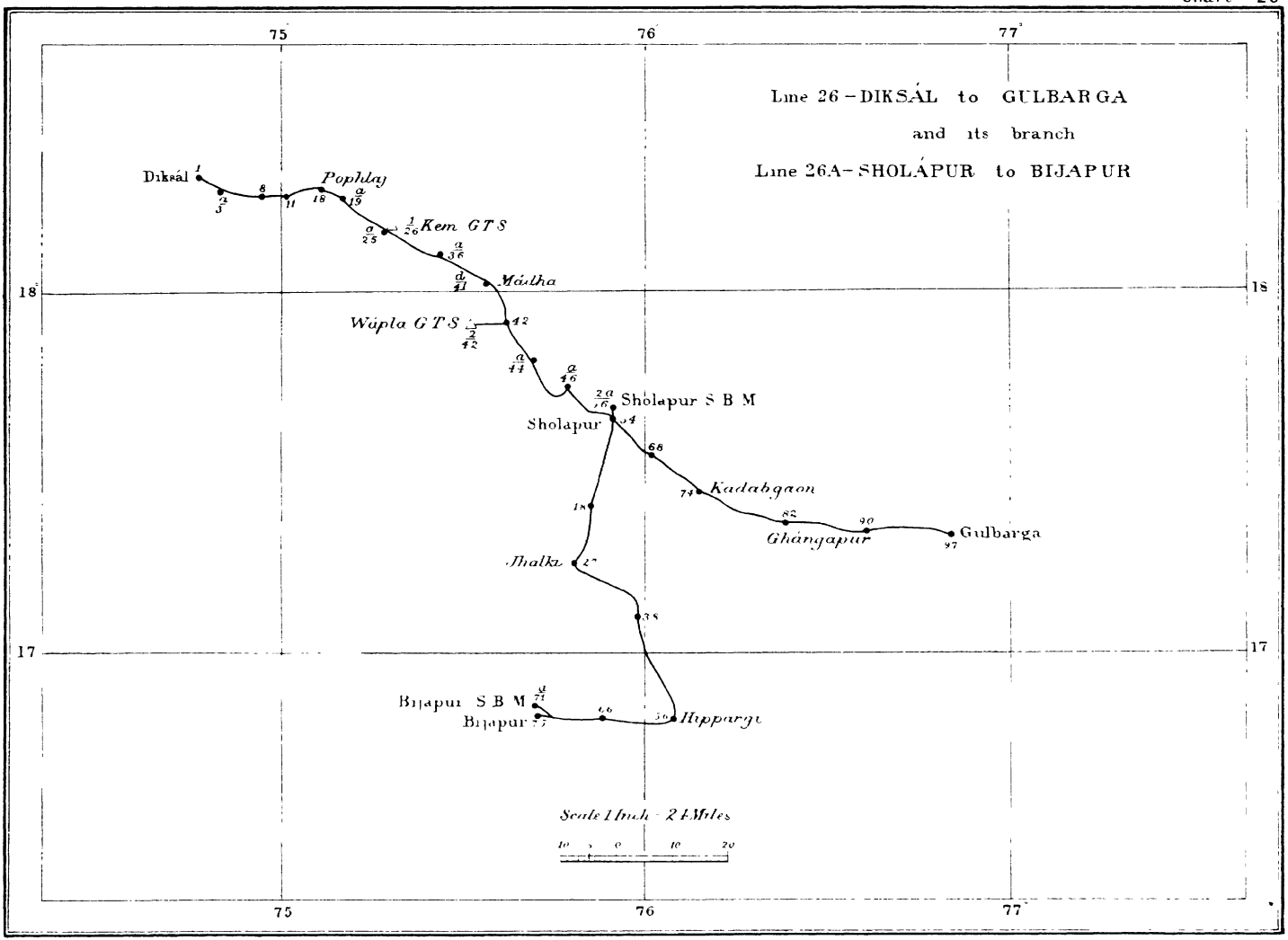

Line 21–RAICHÚR to GOOTY
77°
78°
16°
15°
Raichúr
Malabad G T S
Kúsgi
Adoni G T S
Nandherla
Gooty
Scale 1 Inch = 24 Miles

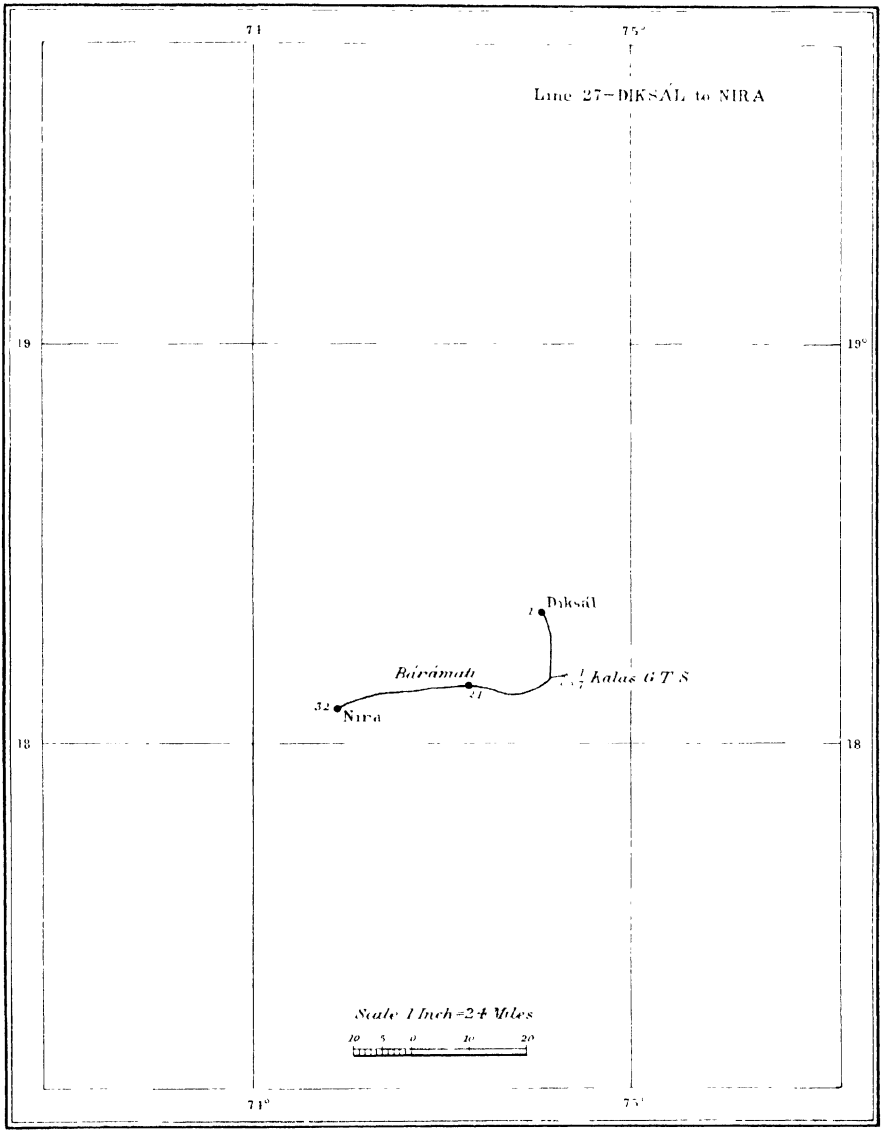

76°
77°
78°
Line 22— GULBARGA to RAICHUR
1 Gulbarga
12
a/14 Wadi
17°
17'
23
30
Naikal G T S
1/28
a/36 Saidapur
Kottapalle G T S
1b/41
b/45
51 2/50 S B M
Raichur
16°
16'
Scale 1 Inch = 24 Miles
10 5 0 10 20
76°
77°
78°

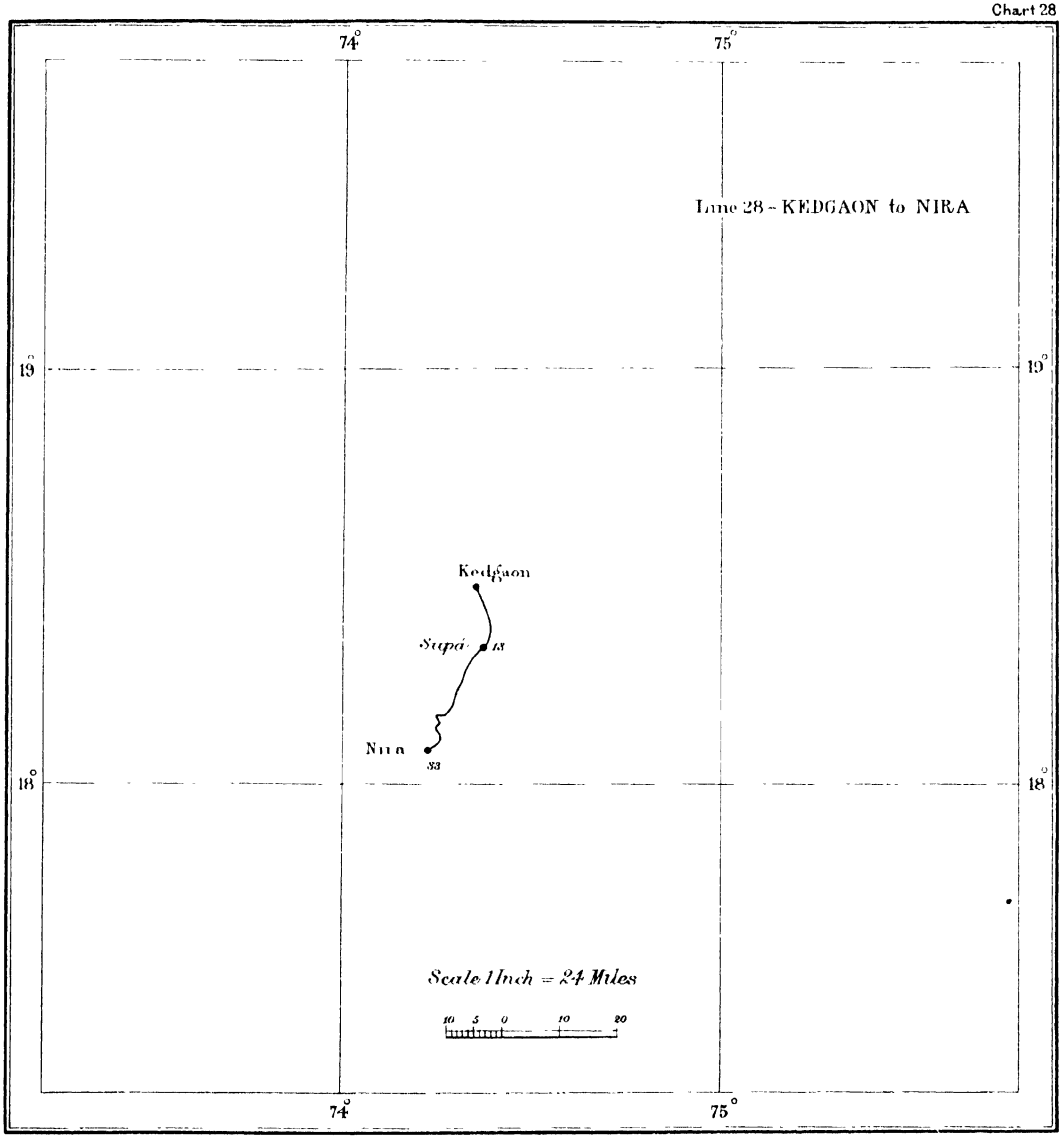

77°
78°
Line 23—BELLARY to RAICHUR
71 Raichur
16°
16°
a/12 Hira Tambal
a/17 Alur
1 Bellary
15°
15°
Scale 1 Inch = 24 Miles
10 5 0 10 20
77°
78°

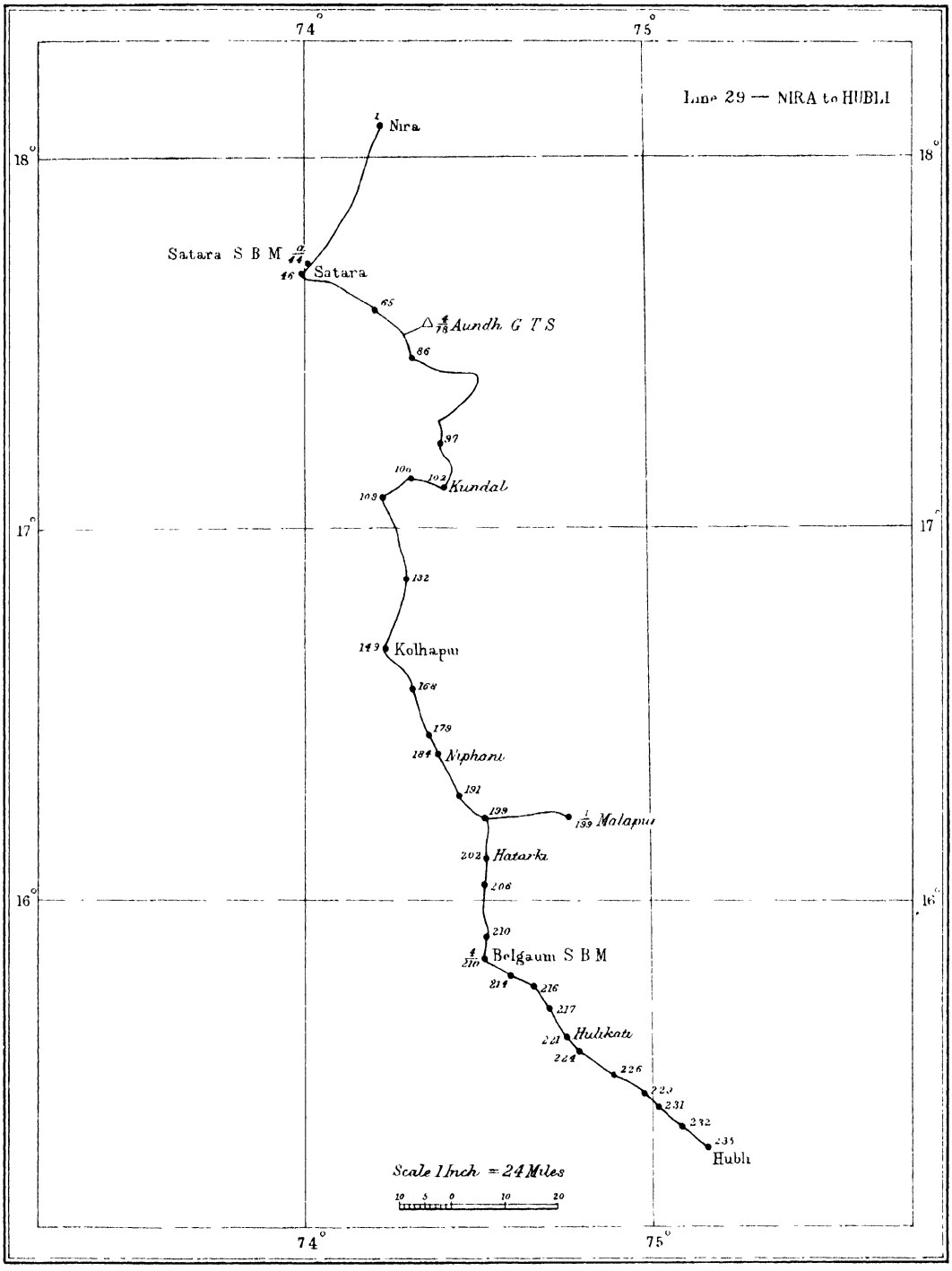

Line 24–GULBARGA to BEZWADA
and its branch
Line 24A–SECUNDERABAD to WARDHA
Wardha
Hinganghat S B M
Warora
Bidar Base W End G T S
Bolarum S B M
Kandi
Secunderabad S B M
Malkapur
Gulbarga
Bezwada
Scale 1 Inch = 48 Miles
77°
78°
79°
80°
21°
20°
19°
18°
17°
16°

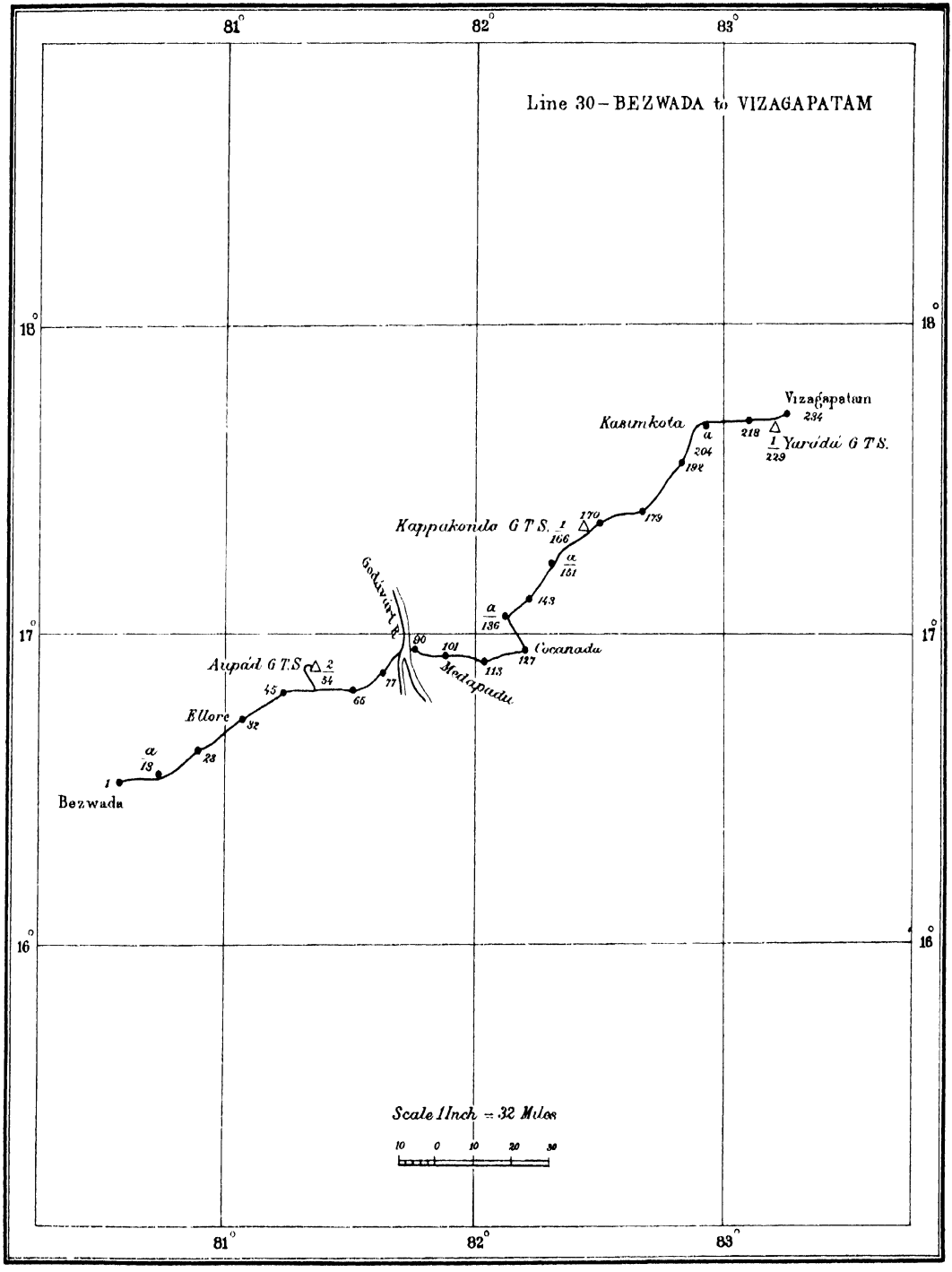

74°
75°
Line 25-KEDGAON to DIKSÁL
20°
19°
18°
Kedgaon
Dhond
Bori G T S
Diksál
Scale 1 Inch=24 Miles
10
0
10
20

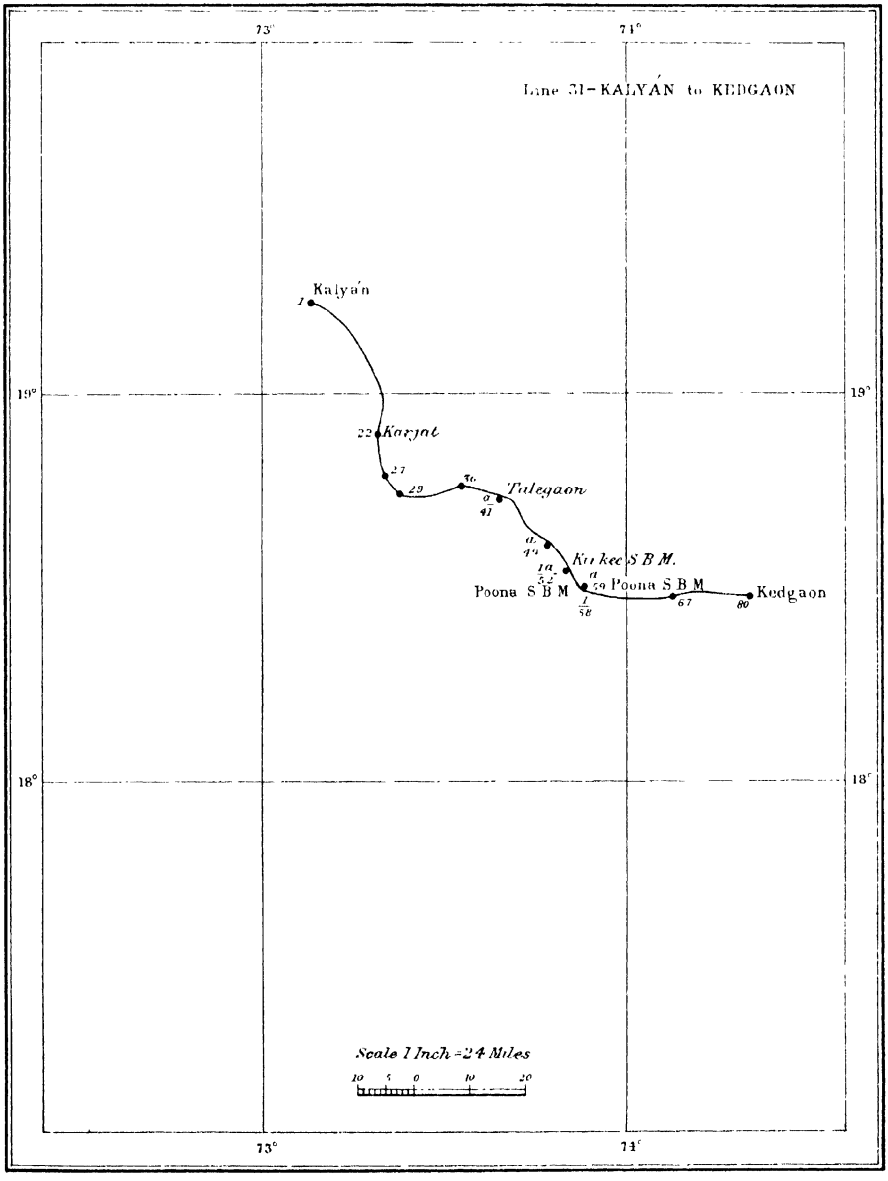

Line 26 – DIKSÁL to GULBARGA
and its branch
Line 26A – SHOLÁPUR to BIJAPUR
75
76
77
18
17
Diksál
Popldaj
Kem G T S
Máltha
Wápla G T S
Sholapur S B M
Sholapur
Kadabgaon
Ghángapur
Gulbarga
Jhalka
Bijapur S B M
Bijapur
Hipparga
Scale 1 Inch = 2 4 Miles

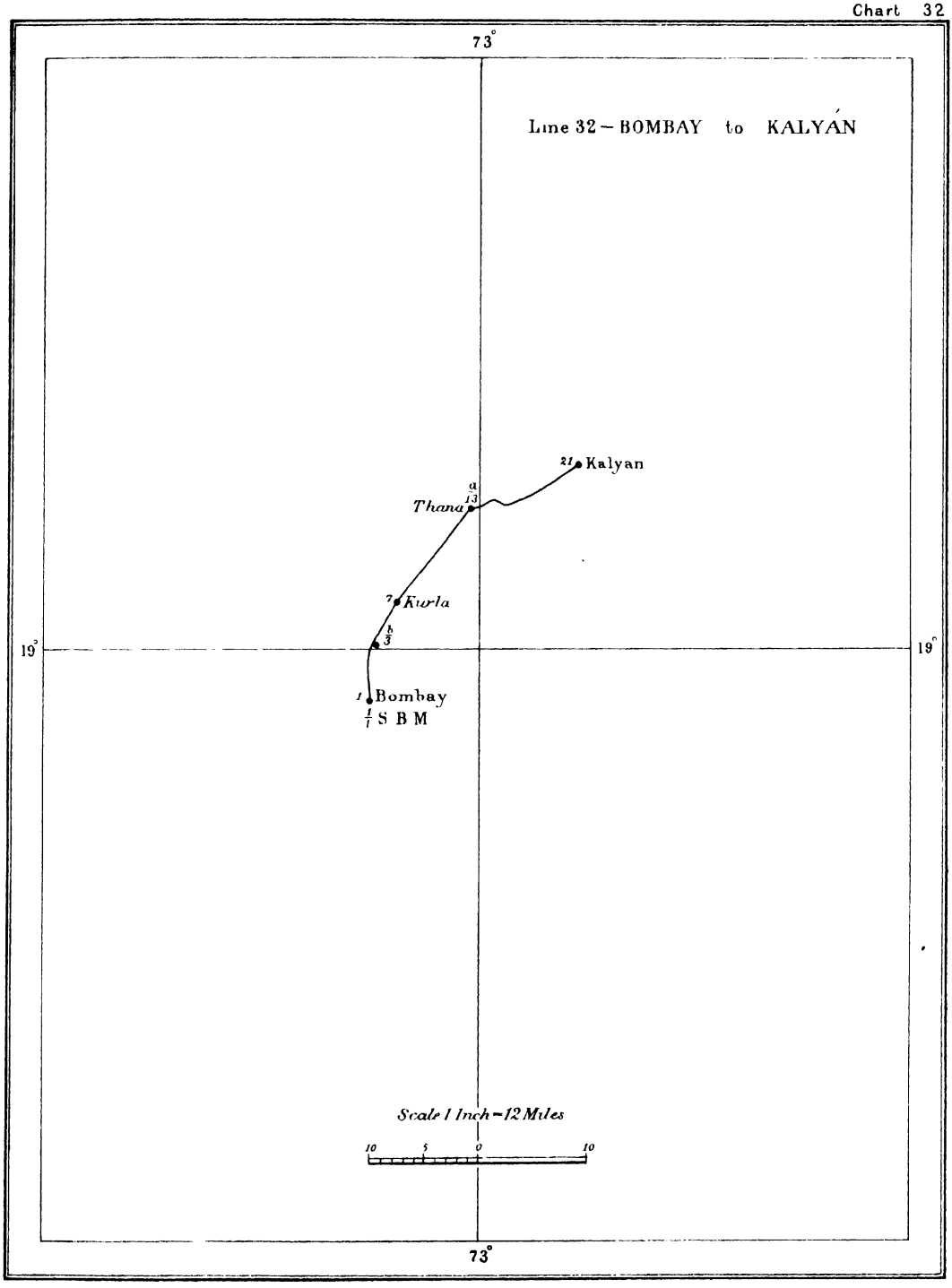

Line 27—DIKSÁL to NIRA
74
75°
19
19°
18
18
74°
75°
Diksál
1
Bárámati
21
Kalas G T S
32
Nira
Scale 1 Inch=24 Miles
10 5 0 10 20

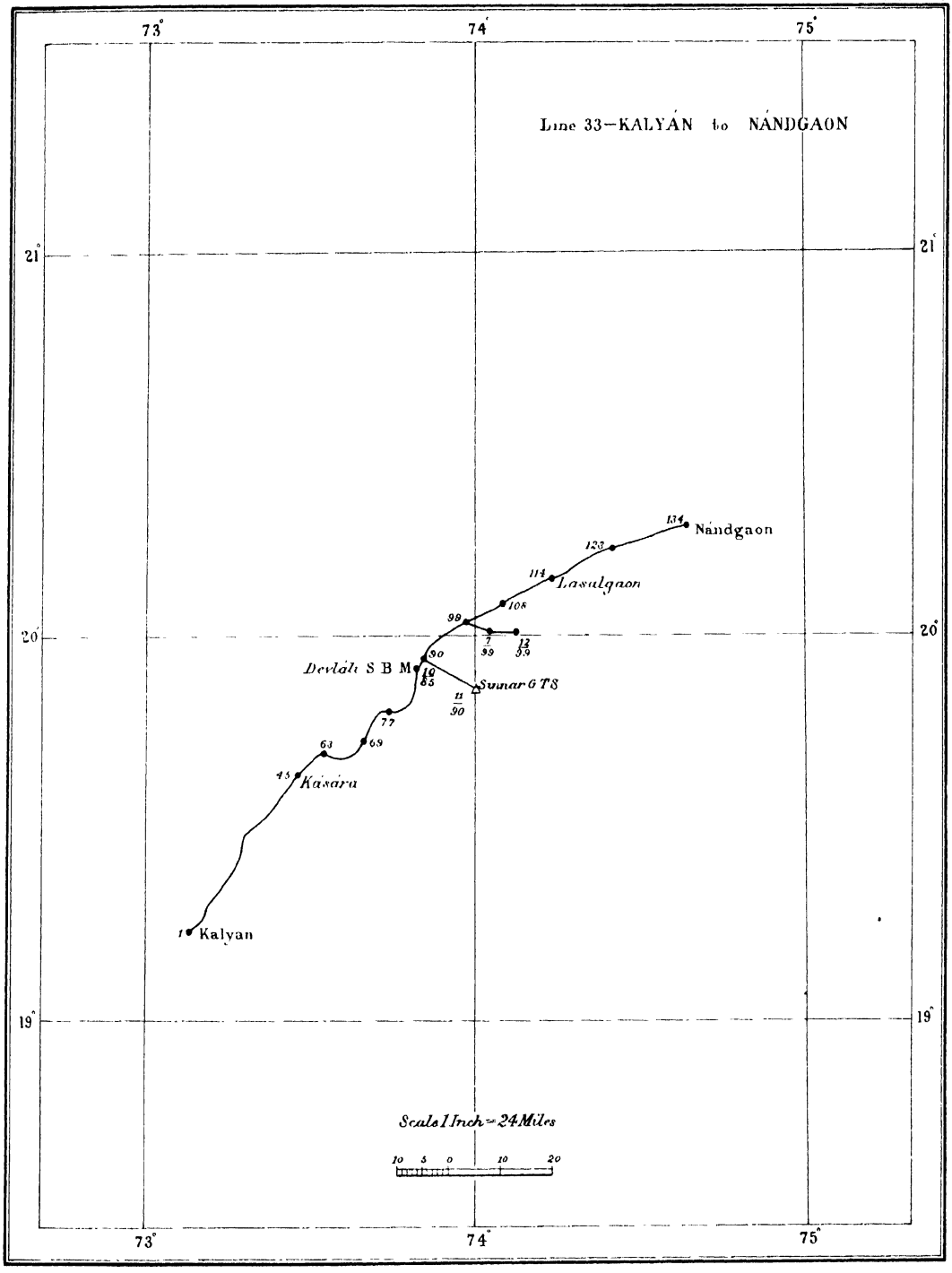

74°
75°
Line 28 - KEDGAON to NIRA
19°
18°
Kedgaon
Supa
13
Nira
33
Scale 1 Inch = 24 Miles
10 5 0 10 20

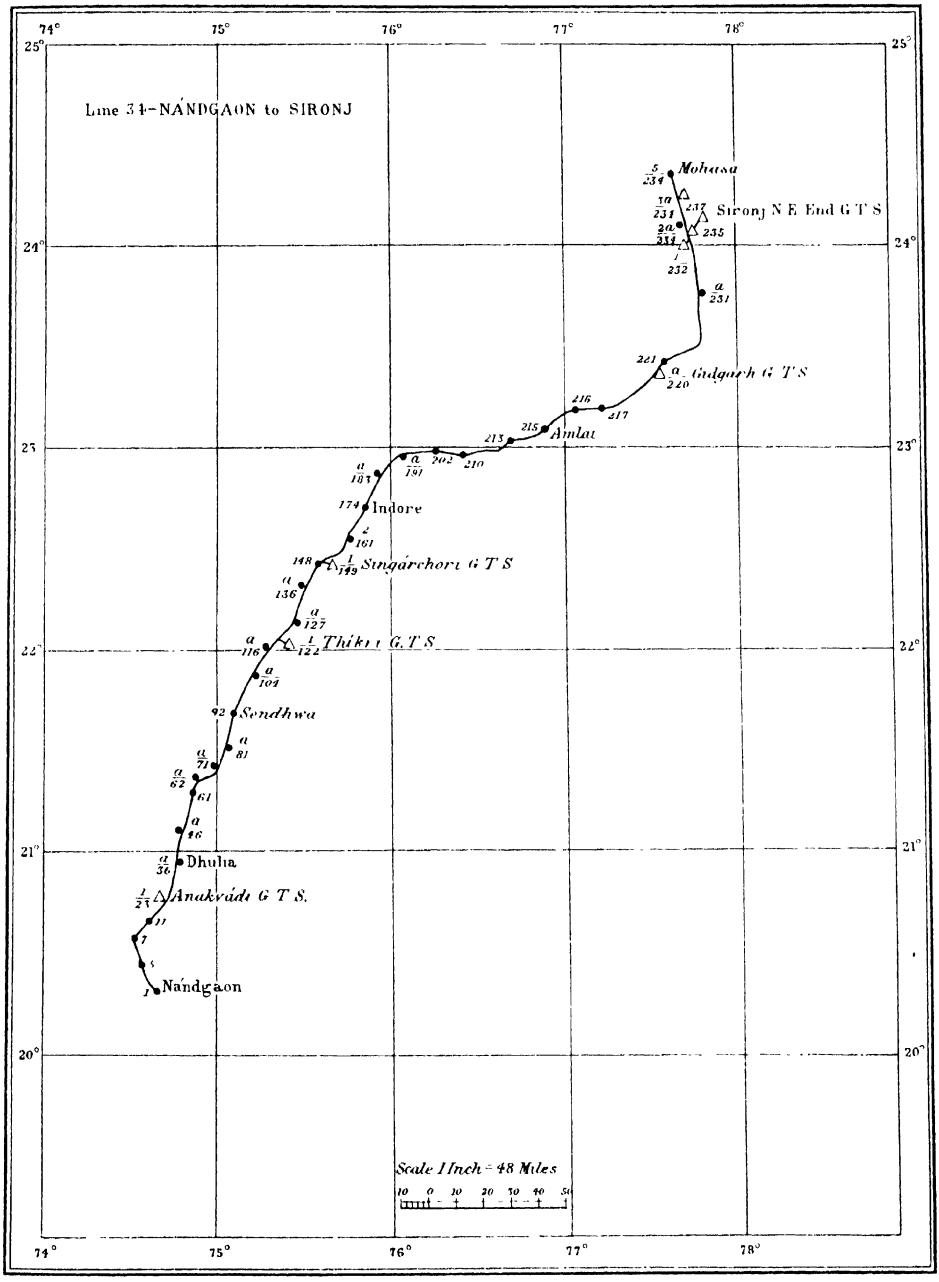

Line 29 — NIRA to HUBLI
74°
75°
18°
17°
16°
1 Nira
Satara S B M 2/14
16 Satara
65
Aundh G T S 4/78
86
97
100
102 Kundal
108
132
149 Kolhapur
168
179
184 Niphani
191
199 1/199 Malapur
202 Hatarki
206
210
Belgaum S B M 4/210
214
216
217
Hulikati
224
226
229
231
232
235
Hubli
Scale 1 Inch = 24 Miles
10 5 0 10 20

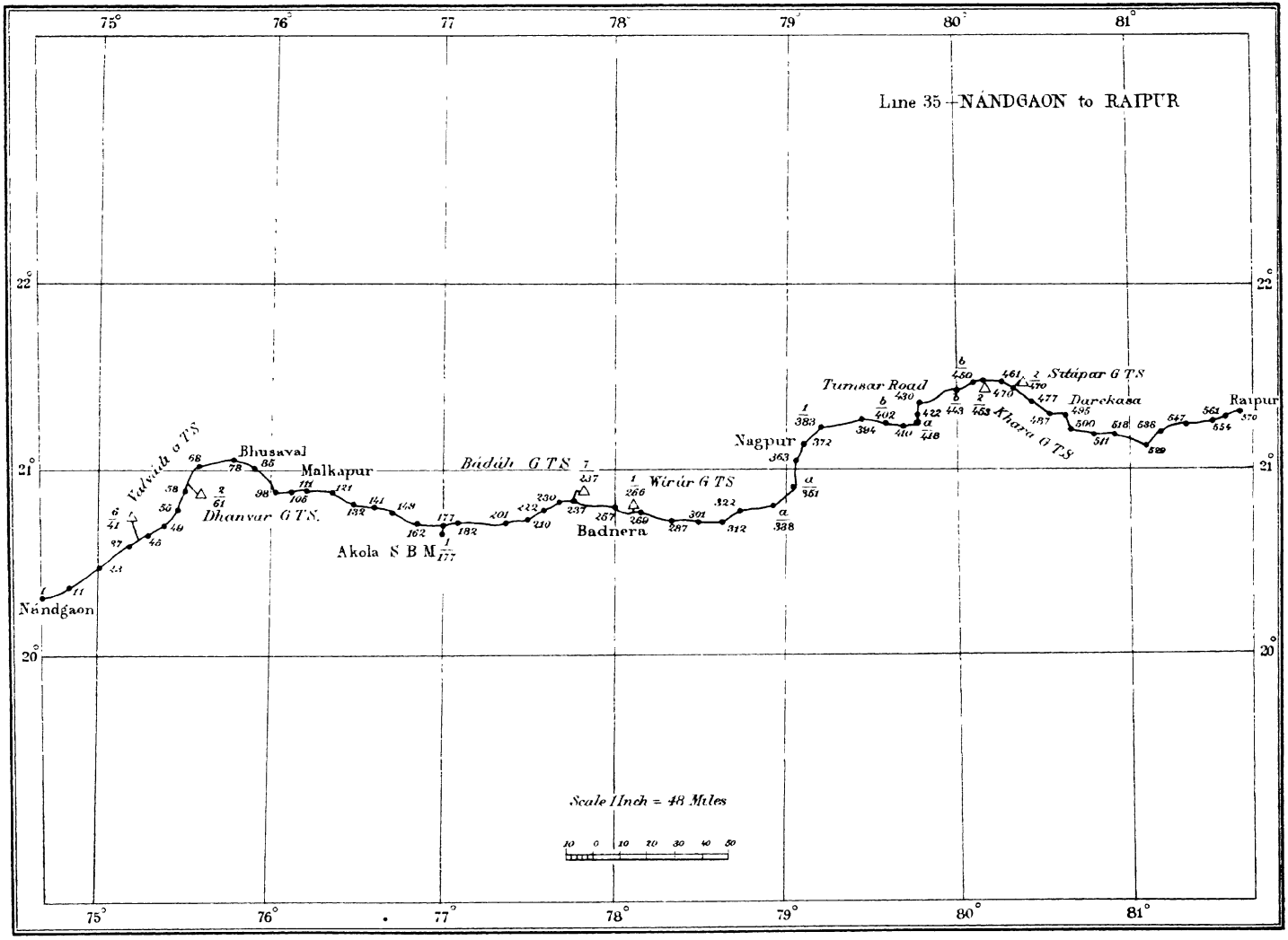

Line 30 – BEZWADA to VIZAGAPATAM
81°
82°
83°
18°
17°
16°
Bezwada
1
a
18
23
Ellore
32
45
Arupád G.T.S.
2
34
66
77
Godávari R.
90
101
Modapadu
113
127
Cocanada
a
136
143
a
151
Kappakonda G.T.S.
1
166
170
179
a
204
192
Kasumkota
218
1
229
Yarádá G.T.S.
Vizagapatam
234
Scale 1 Inch = 32 Miles
10
0
10
20
30

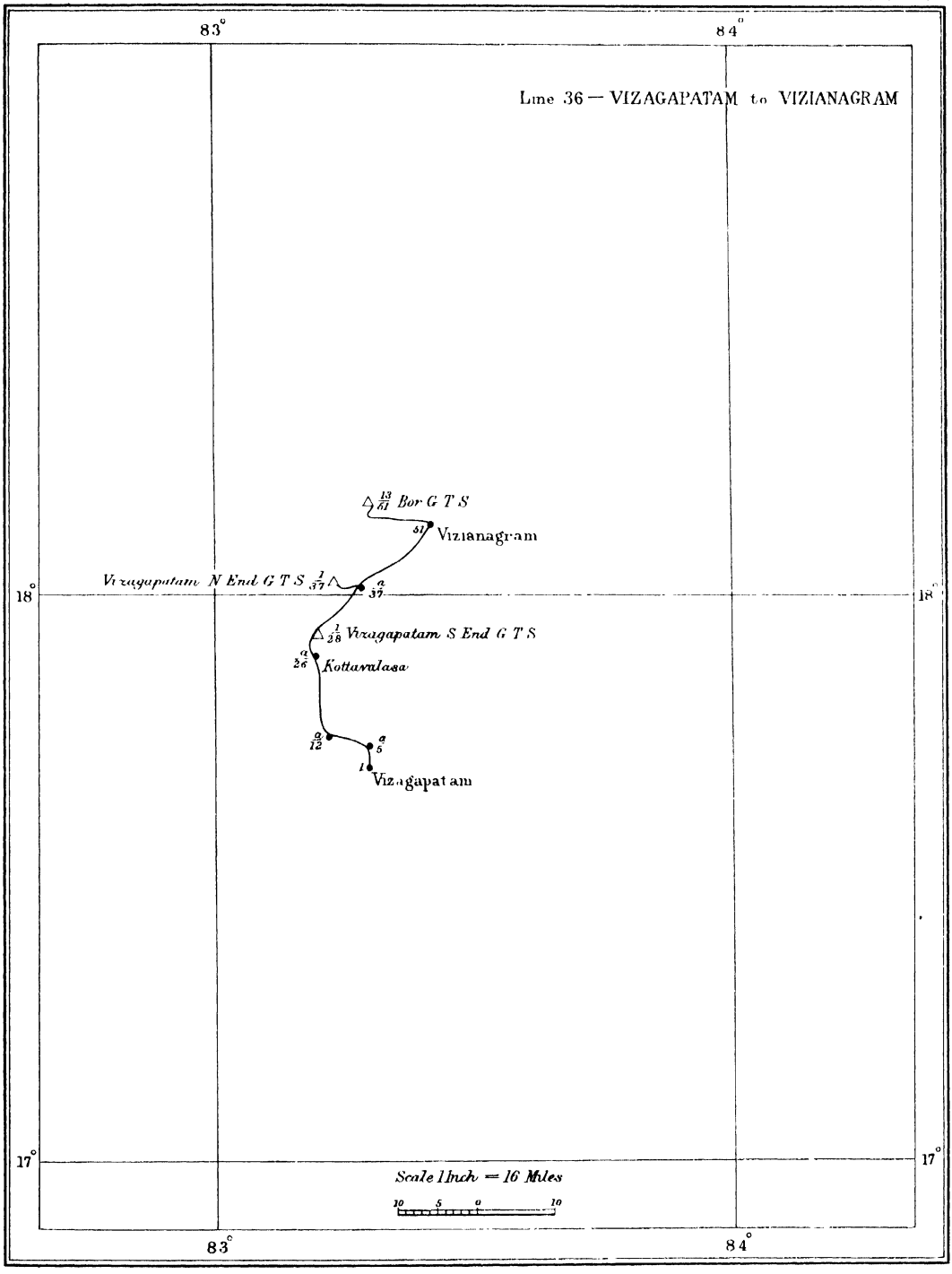

73°
71°
Line 31–KALYÁN to KEDGAON
Kalyán
1
19°
19°
22
Karjat
27
29
30
Tulegaon
41
44
Kirkee S B M.
52
Poona S B M
59
Poona S B M
67
Kedgaon
80
58
18°
18°
Scale 1 Inch = 24 Miles
10 5 0 10 20
73°
71°

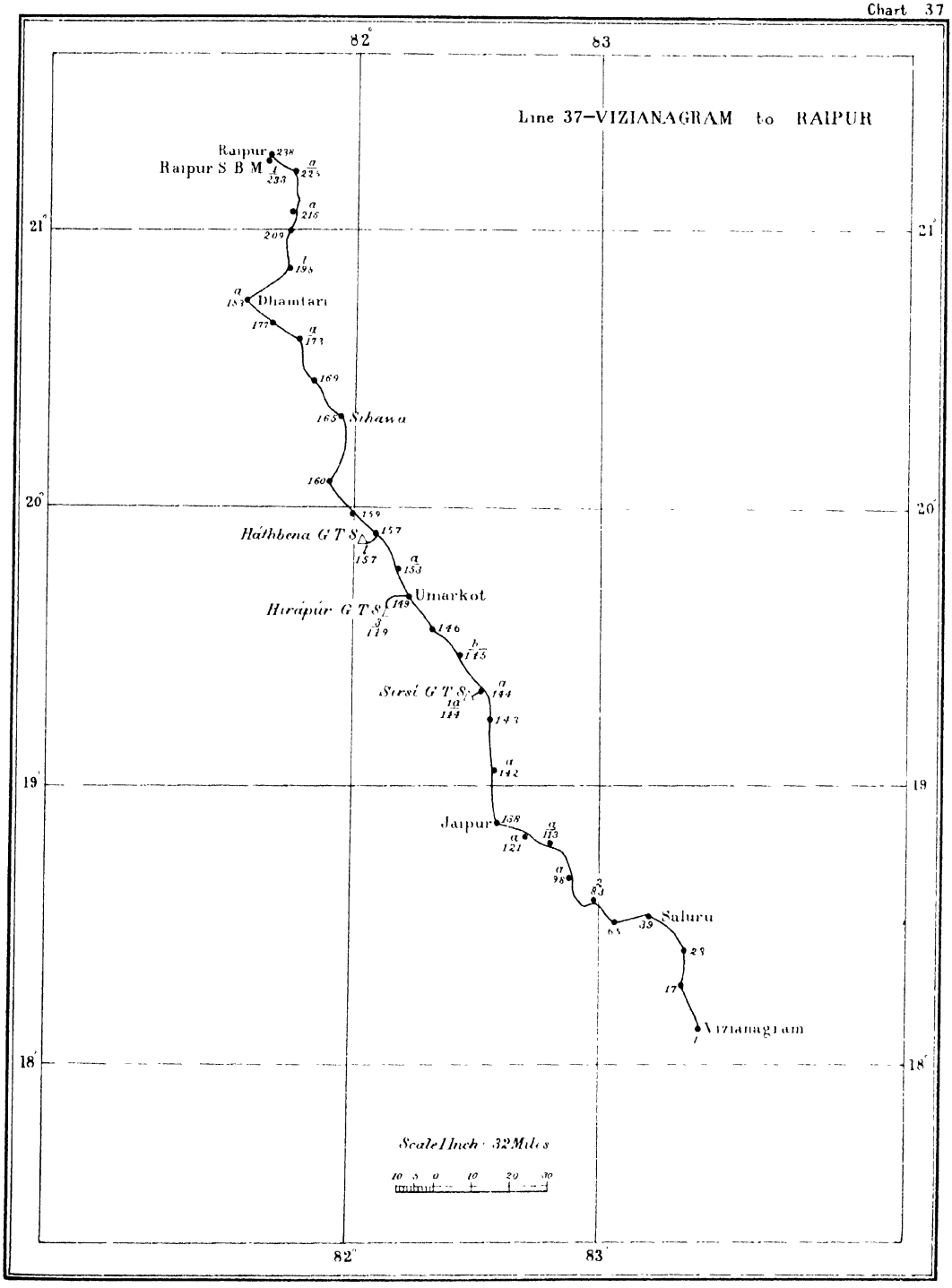

73°
Line 32 – BOMBAY to KALYÁN
21 Kalyan
a
13
Thana
7 Kurla
b
3
19°
19°
1 Bombay
1/1 S B M
Scale 1 Inch = 12 Miles
10 5 0 10
73°

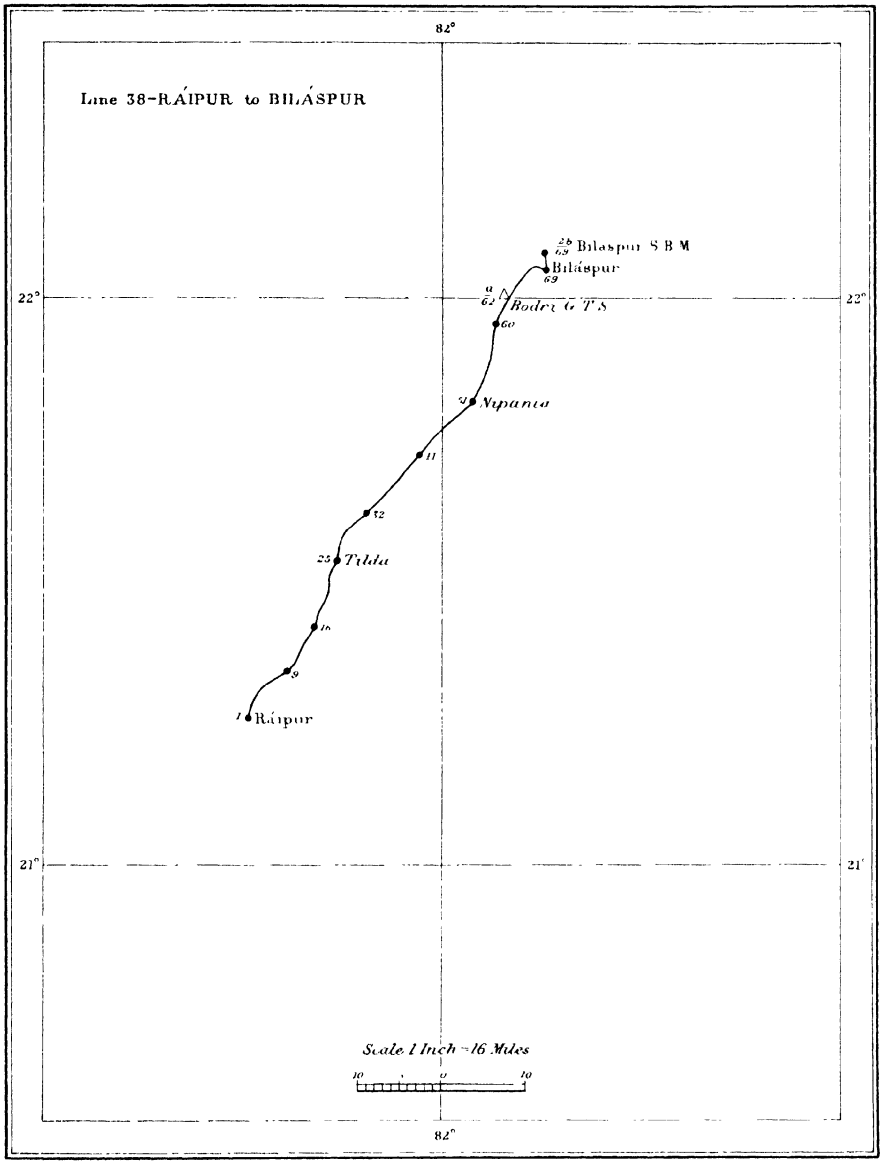

73°
74°
75°
Line 33—KALYÁN to NÁNDGAON
21°
20°
19°
134
Nándgaon
123
114
Lasulgaon
108
98
7/99
13/99
90
Devláli S B M
10/85
Sunnar G T S
11/90
77
69
63
45
Kására
1
Kalyan
Scale 1 Inch = 24 Miles
10 5 0 10 20

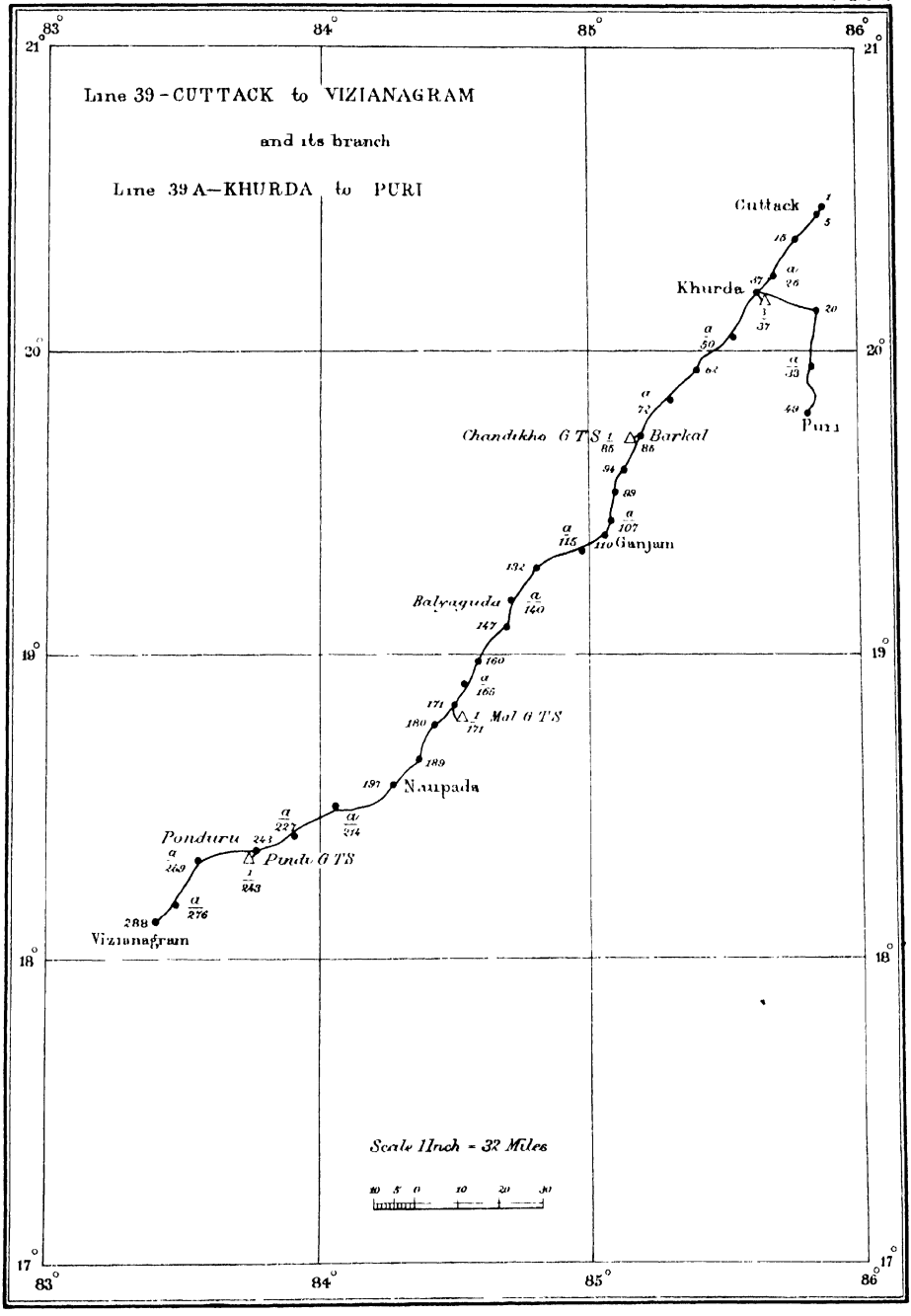

Line 34—NÁNDGAON to SIRONJ
Mohasa
Sironj N E End G T S
Gidgarh G T S
Amlai
Indore
Singárchori G T S
Thikri G T S
Sendhwa
Dhulia
Anakvádi G T S.
Nándgaon
Scale 1 Inch = 48 Miles
74°
75°
76°
77°
78°
25°
24°
23°
22°
21°
20°

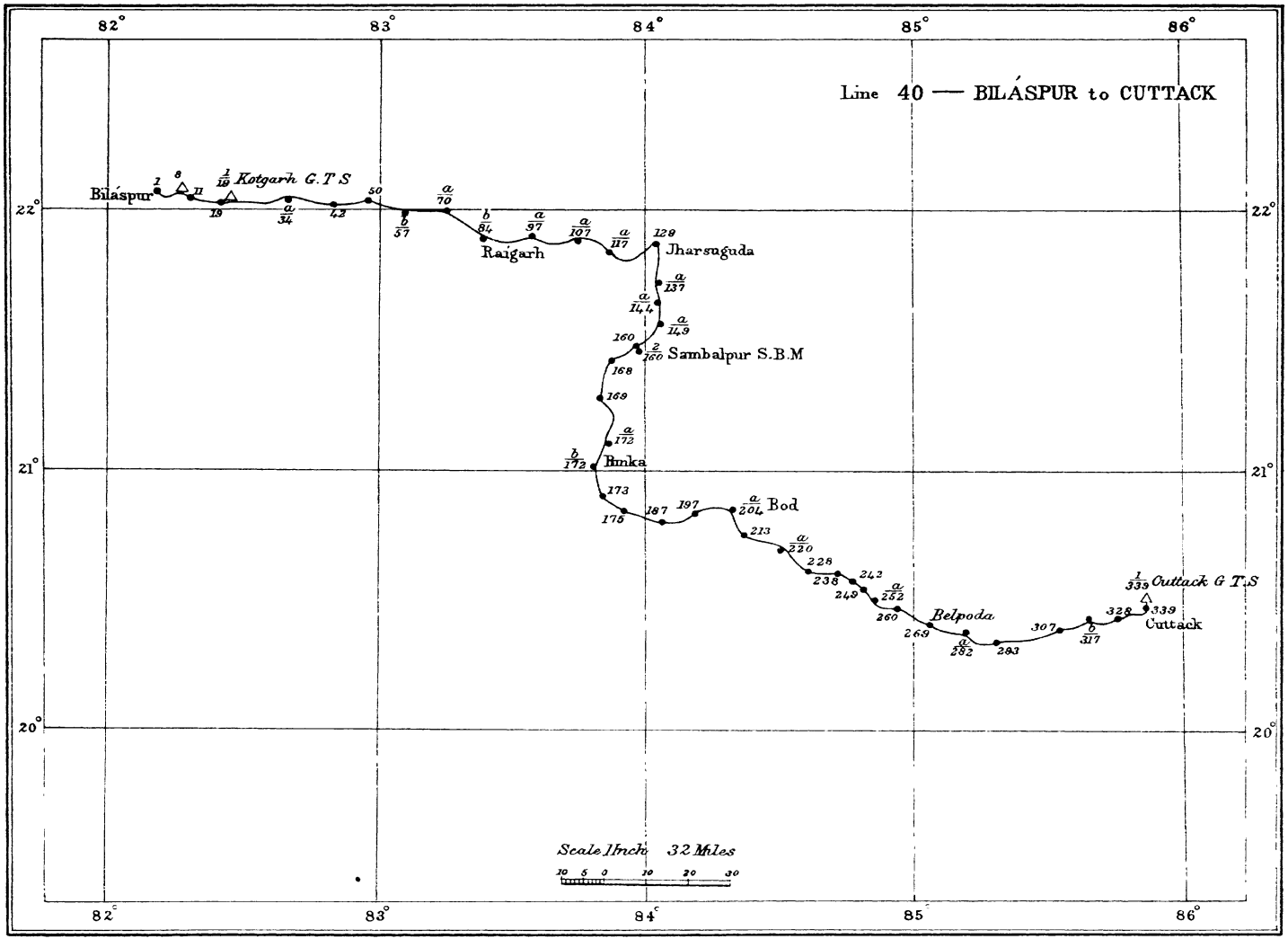

Line 35—NÁNDGAON to RAIPUR
Nándgaon
Valvath G T S
Bhusaval
Dhanvar G T S.
Malkapur
Akola S B M
Bádáli G T S
Badnera
Wirúr G T S
Nagpur
Turnsar Road
Darekasa
Sitápur G T S
Raipur
Scale 1 Inch = 48 Miles
75°
76°
77°
78°
79°
80°
81°
20°
21°
22°

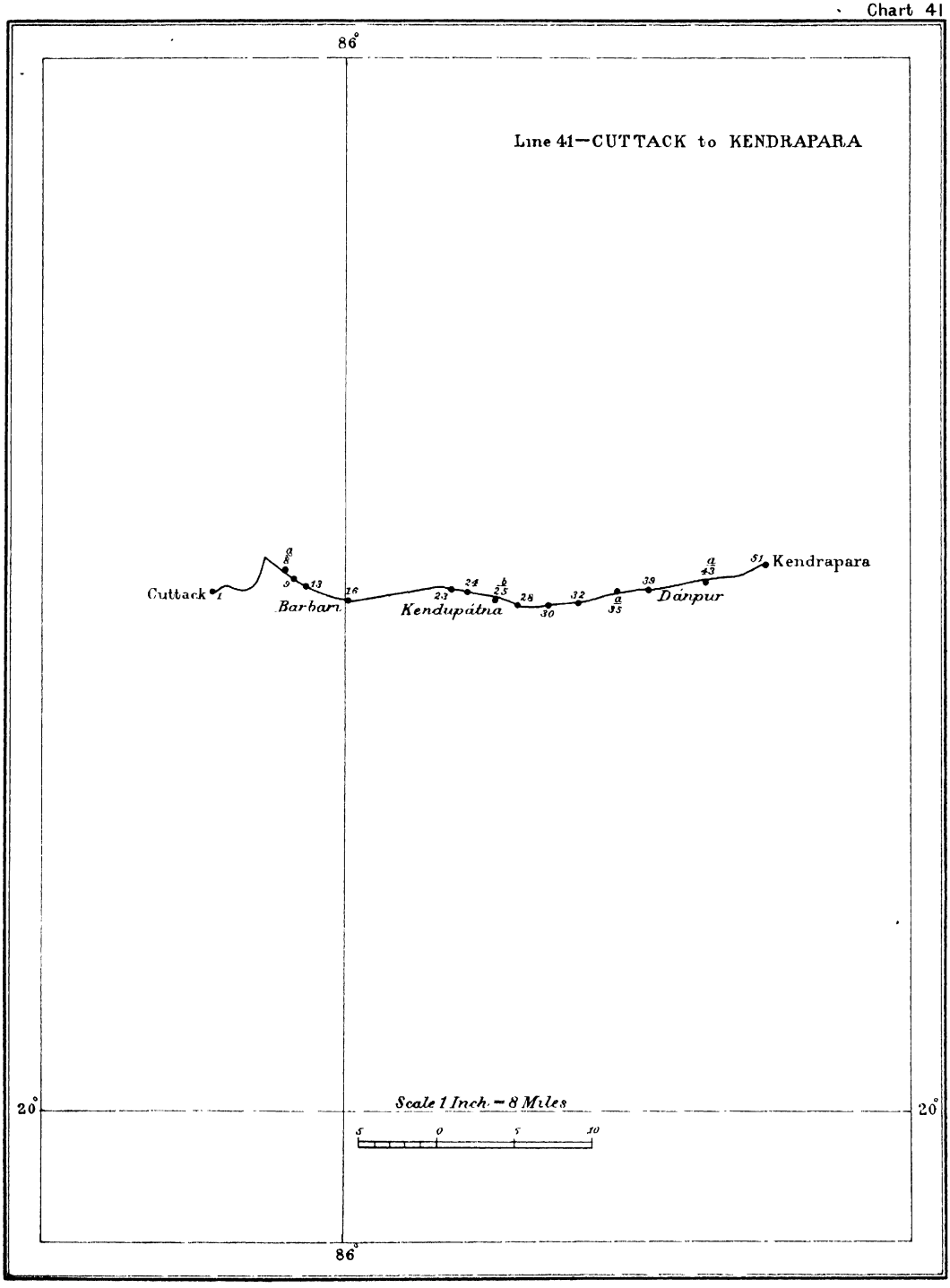

83°
84°
Line 36 — VIZAGAPATAM to VIZIANAGRAM
13/61 Bor G T S
51
Vizianagram
Vizagapatam N End G T S 1/37
a/39
18°
18°
1/28 Vizagapatam S End G T S
a/26
Kottavalasa
a/12
a/5
1
Vizagapatam
17°
17°
Scale 1 Inch = 16 Miles
10 5 0 10
83°
84°

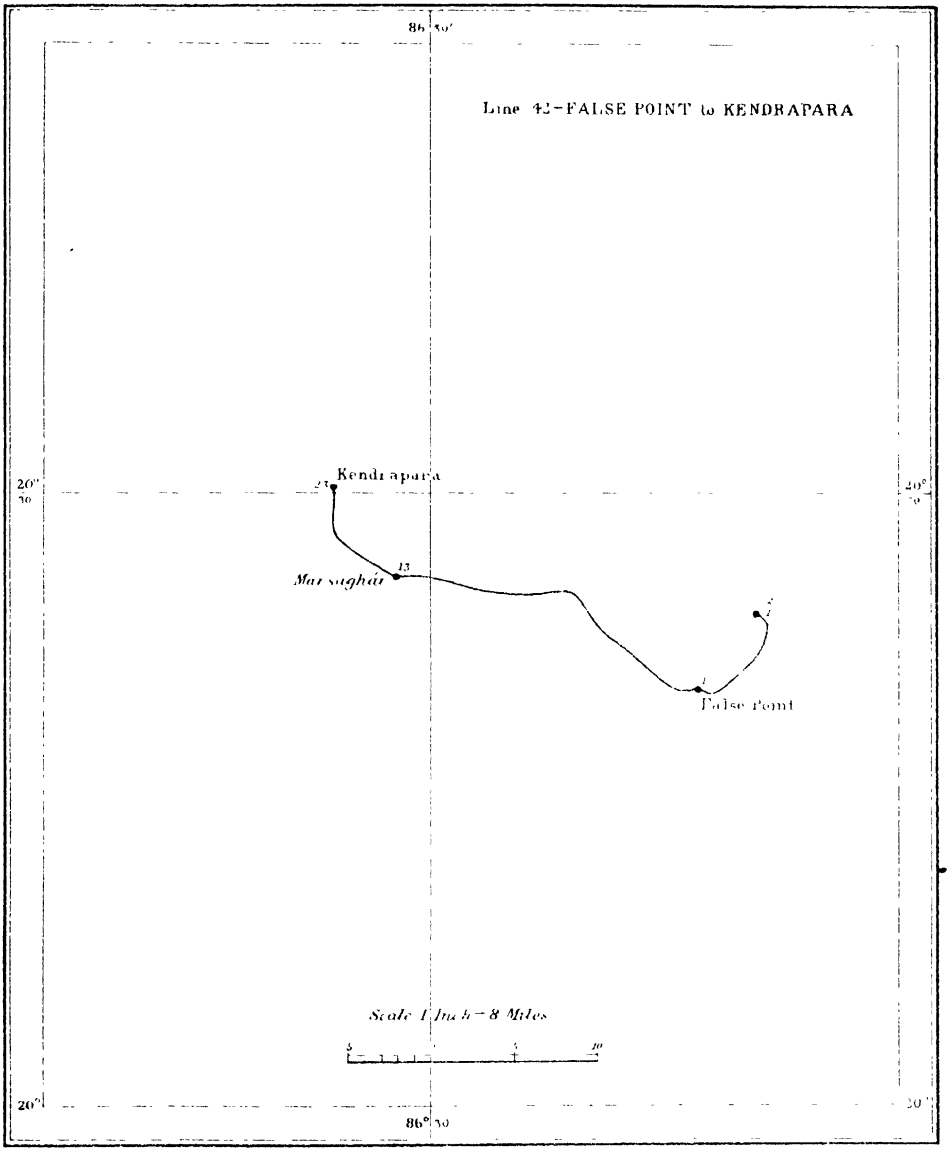

Line 37—VIZIANAGRAM to RAIPUR
82°
83
21°
20°
19°
18°
Raipur
Raipur S B M
Dhamtari
Sihawa
Hathbena G T S
Umarkot
Hirapur G T S
Sirsi G T S
Jaipur
Saluru
Vizianagram
Scale 1 Inch = 32 Miles
10 5 0 10 20 30


82°
Line 38-RÁIPUR to BILÁSPUR
Bilaspur S B M
Biláspur
Bodri G T S
Nipania
Tilda
Ráipur
22°
21°
Scale 1 Inch = 16 Miles
10
0
10


Line 39 - CUTTACK to VIZIANAGRAM
and its branch
Line 39 A—KHURDA to PURI
Cuttack
Khurda
Puri
Chandikho G T S
Barkal
Ganjam
Balyaguda
Mal G T S
Naupada
Ponduru
Pondu G T S
Vizianagram
Scale 1 Inch = 32 Miles
83°
84°
85°
86°
21°
20°
19°
18°
17°


Line 40 — BILÁSPUR to CUTTACK
82°
83°
84°
85°
86°
22°
21°
20°
Bilaspur
Kotgarh G.T.S
Raigarh
Jharsuguda
Sambalpur S.B.M
Bunka
Bod
Belpoda
Cuttack G.T.S
Cuttack
Scale 1 Inch 32 Miles


86°
Line 41—CUTTACK to KENDRAPARA
Cuttack
1
a
8
9
13
16
Barbari
23
24
b
25
28
30
32
a
35
Kendupátna
39
Dánpur
a
43
51
Kendrapara
20°
Scale 1 Inch = 8 Miles
5
0
5
10
20°
86°


86° 30'
Line 42–FALSE POINT to KENDRAPARA
Kendrapara
Marsaghai
False Point
20° 30'
20°
Scale 1 Inch = 8 Miles
5
10
86° 30'